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~~H~~AND-BOOK
OF
MINNESOTA:

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DESCRIBING

ITS AGRICULTURAL, COMMERCIAL AND MANUFACTURING
RESOURCES, AND OTHER CAPABILITIES
OF PRODUCING WEALTH,

ALSO,

ITS PHYSICAL AND SOCIAL CONDITIONS AND ITS FUTURE.

By RUFUS BLANCHARD.



CHICAGO:
BLANCHARD & CRAM.

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ASTOR, LENOX AND
TILDEN FOUNDATIONS.
1900.

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PREFACE.

In the following pages the writer has endeavored to embody information most useful to those wishing to settle in Minnesota. The material has been condensed by compact composition to a size convenient for the pocket, and by the same process its price made within the means of all. His information has been obtained from travels through the most populous parts of the State by private conveyance, and also by a long and thorough association with *WESTERN LIFE*, having been for the past twelve years engaged in publishing Maps of the North-Western States.

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HAND-BOOK OF MINNESOTA

SUMMARY OF PHYSICAL GEOGRAPHY.

BOUNDARIES, SURFACE AND LAKES.

Minnesota lies not far from the geographical centre of North America, and is the most elevated body of arable land not upheaved by volcanic action, on the continent. This is evident from its river system. The Mississippi drains nearly three-fourths of her area, giving it a south-eastern inclination, and emptying her waters into the Gulf of Mexico. Her north-eastern corner, which we will christen the bow-sprit, from its similitude in profile to that graceful outline, is drained by the St. Louis river, and other smaller streams emptying into Lake Superior, whence, through the great chain of lakes her waters are mingled with the Atlantic. Her north-western corner is drained by the Red and Rainy Lake rivers, by whose channels they ultimately find their way to the Arctic seas, through Hudson's Bay. On the east she is bounded by Lake Superior and the State of Wisconsin, from which she is divided by the meridian of 92 degrees 30 minutes, and the St. Croix and Mississippi rivers. On the south she is bounded by the State of Iowa, from which she is divided by the parallel of 43 degrees 30 minutes. On the west she is bounded by the Territory of Dakota, from which she is divided by the meridian of 96 degrees 30 seconds, and the Red river. On the north she is bounded by British America, from which she is divided by the 49th parallel and the Rainy Lake river. The whole area of the State is 80,398 square miles, or 51,454,802 acres. Of this amount, about 45,000 square miles are embraced in the Mississippi valley. The altitude of the high lands in this immense plateau is probably more uniform than that of any other equally large body of land in North America, and yet, so deep has been the erosion by drainage, that this whole surface is diversified by a succession of low intervals or bottom lands, and every conceivable form of oval and irregular shaped side hills, most of which attain one

common height at their tops. Beyond these are the broad uplands interposing between rivers. The surface of these uplands is variegated with many cup-shaped hollows, filled with the clear waters of this elevated region, constituting her lake system. No other portion of the world has so great a variety of these lakes as Minnesota. They have a general rotundity of shape, and vary in size from 100 feet to six miles across. Mille Lacs, Leech lake and Winnebegoshish lakes, being the only exceptions in the Mississippi Valley. These are twenty miles wide or more. There are several very large lakes in the northern part of the State, Red Lake being the largest. It is about 30 miles long and 20 broad. The larger portions of these lakes have wet and grassy margins, the remainder having hard pan-bottoms and firm banks. The former appear to be rapidly diminishing in size, as the grass seems to make annual encroachments upon their faces, and also their channels of drainage are constantly deepening, and it is but a fair inference to predict that some future generation will plow where the present fish. The graveled bottom lakes will be more enduring, and present no striking signs of diminution in size. Abundance of excellent fish are found in all of them. Of the surface of those portions of the State not included in the Valley of the Mississippi, less can be said, as it has not yet been surveyed in sections, but enough is known to state that it is marked with less uniformity than that of the Mississippi Valley, large drift hills of sand separated by low savannas, being of frequent occurrence within the region of pine and bold uplifting peaks of rock, slightly encrusted with paney earth, ornamented with ferns in the mineral regions, especially north of Lake Superior, where rock-bound terraces rise one above the other to the height of 400 feet, and in places, says Mr. Eams, the State geologist, to the immense height of 1,200 feet. The lands along the Red River valley are an exception however, being admirably adapted to agricultural purposes, especially to wheat culture. The following Table of Elevations will give a general idea of the Topography of the State :

TABLE OF ELEVATIONS.

LOCALITY.	Height above Ocean, in feet.
Itasca Lake.....	1592
Adjacent hills.....	1680
Snake river, 75 miles from St. Paul's.....	1015
Kettle river, at Fortuna.....	946
Summit, 29½ miles from Lake Superior.....	1188
Summit, 18 miles S. of Superior city.....	1272

TABLE OF ELEVATIONS—continued.

LOCALITY.	Might above Ocean, in feet.
Trap range, 9 miles above the falls of St. Croix river.....	1076
Pokegama Lake.....	974
Summit of Grand Portage.....	1066
Great Palisades, N. shore of Superior.....	1056
McKay's Mount, " " "	1824
Carlton's Peak, " " "	1542
Summit of Sandy Lake Portage.....	1400
Mcsabi Range, head St. Louis river.....	1750
Rainy Lake.....	1080
Summit between Lake Winnebegoshish and Grand Fork.....	1428
Summit between Turtle Lake and Red River.....	1418
Big Stone Lake.....	968
Lac qui parle.....	946
Devil's Lake.....	1476
Adjacent hills.....	1766
Head of Wild Rice river.....	1872
Forks of the Shayen-aju and Beaver Lodge river.....	1826
Summit of the Coteau de Prairie.....	2046

VEGETATION.

The whole State consists of grass-clad plains and dense forests, oak openings often occurring in the prairie regions, where both grass and trees abound, and in the forest regions, glades or openings relieve its glooms as often perhaps as once in a mile square. These are flat patches of ground covered with meadow grass, varying in size from an acre to 40 acres, and sometimes more. The grasses consist mostly of the common varieties of prairie grass, and in the western part of the State blue grass, and the tall and luxuriant blue joint, the latter growing six or seven feet high. All these grasses are wholesome and nutritious for stock.

TREES.

These consist of burr oak, white oak, red and black oak, maple, linden, poplar, hickory, pine, spruce, tamarack, hemlock, ash, cedar, butternut, black walnut, birch, iron wood, crab apple, wild plum, willow and cotton wood, distributed as follows: Three-fourths of the surface of Houston, Winona, Wabashaw and Fillmore counties, and that portion of Goodhue county within ten miles of the Mississippi are covered with timber, composed chiefly of oak openings, consisting of white and burr oak, and occasional poplar groves, with an under-growth of young oak shrubs, the latter occurring often where there are no large trees. The counties of Dakota and Goodhue except the river borders, the western part of Rice, Olmstead, Dodge, Steele, Waseca, Blue Earth, Faribault, Freeborn and

Mower, are on an average composed of one-sixth timbered lands, pretty evenly distributed, and consisting of oak openings, with some dense groves of poplar, and full one-half of the balance grub lands, consisting of young oak trees from one to six feet tall, the remainder being prairie, free from any vegetation except grass.

The counties of Martin, Watonwan, Brown, Nicollet, Sibley, except the eastern portions, and the south-west portions of McLeod, Meeker, Stearns and Douglas, and all west of these in the State are almost all prairie, averaging not more than a section of good timber to a township, which is found chiefly along the rivers, grub lands in these counties seldom occurring. The counties of Le Sueur, western part of Rice, Scott, Carver and Hennepin were originally almost an entire dense forest of maple, oak, elm, linden and iron wood. The counties of Chisago, Washington, Anoka, Ramsey and Sherburne; are about equally divided between prairie and timber, consisting of burr and white oak openings, and tamarack, crab apple, poplar and wild plum groves. Wright county, and the north-eastern portions of McLeod, Meeker and Stearns counties, are composed of about one-fourth prairie and three-fourths timber land, consisting of maple, oak, iron wood, poplar, elm, linden, tamarack and wild plum, nine-tenths of the remaining portions of the State are covered with a growth of pine, and all the trees common to other portions of the State with some hemlock and cedar.

SMALL PLANTS,

Too numerous for detail, decorate the broad prairie landscape with their blossoms, or cling their tendrils to trees in the forest margin, or hang in luxuriant drapery over rocky ravines, adorning all nature through the growing season.

RIVERS.

The Mississippi washing the eastern shore of southern Minnesota, moves slowly along beside its bold bluffs, 400 feet high at the Iowa line, imperceptibly lessening in height above the river to about 100 feet immediately below St. Anthony Falls. These bluffs are moulded into various cone-shaped forms of great beauty, by the numerous tributaries and ravines which cross their bold brows, but sometimes the stubborn rock refuses any comely shape, and maintains its perpendicular or graduates with giant steppes in angular benches. Above the falls, nature's work has not been developed, and the river rolls along on the surface, but little depressed below the surrounding country. From St. Anthony down to the State line, the river

falls at an average of six inches to the mile. Above, the stream is more rapid, its height at Itasca Lake (its head) being 1532 feet above tide water; at Leech Lake, 1380; at Cass Lake, 1400; at Pokegama Falls, 1340; at Sandy Lake, 1253; at Crow Wing, 1130; at St. Anthony, 777 feet. Much of this descent occurs at the various rapids, the principal of which are at St. Anthony, Sauk Rapids, Little Falls, and Pokegama Falls. At these places are water powers of great magnitude. Above St. Anthony the river is navigable for 350 miles. The Minnesota or St. Peters river is the next stream of importance. It has its source in Big Stone Lake, and drains a fertile valley consisting mostly of broad prairie above Mankato, thence it turns northward through a wooded country to its confluence with the Mississippi at Ft. Snelling. This stream has no water power. It could with a moderate expense be made navigable to its very source, Big Stone Lake. Small steamers run on it to Ft. Ridgely without difficulty. The St. Croix river, which empties into the Mississippi at Prescott, is navigable as far as St. Croix. Its banks are heavily timbered with pine about its head waters. In southern Minnesota the Cannon, Zumbro, Minneska and Root rivers are all rapid and constant streams, on which are numerous mill sites, among which the water power at Cannon Falls is the most important. On all these streams, particularly on the Cannon river, beautiful plains of second bottom exist. These are intermediate between the low bottom lands and the high bluffs, elevated from the former by an abrupt terrace of say 12 feet in height. These are exceedingly level, dry and fertile. The Red river of the north has a valley of exceeding fertility, and will at no distant day be settled by the pioneer, and teem with wealth and commerce, it being a navigable stream. The tributary streams to the above rivers are too numerous to mention. They abound in excellent mill sites, and leave no large portion of the State very distant from their drainage and water powers. Many of these have their source in some lake, and course along through a chain of small lakes on the elevated interior of the State. Springs and rivulets abound in all parts of the State, amply supplying each locality with living water. Often the tall grasses or trailing vines conceal them, till they have attained enlarged proportions by uniting with their modest companions when they show themselves in babbling brooks.

(SOIL.

Throughout the Mississippi valley the soil is a mellow chocolate color, or a deep black loam, the latter made up of decayed

vegetation, occurring in the wetter portions. It is composed of fine lime stone gravel and clay, so well balanced as to make it sufficiently retentive to hold moisture, and sufficiently mellow to keep it from becoming hard and lumpy during severe droughts. This rests on a more solid substratum of clay or lime-stone, percolated by thousands of subteranean water veins, which are easily reached by digging 15 or 20 feet below the surface, affording never failing wells of pure water. Solid clay neither gives nor receives moisture to but a very limited extent, but the two combined as they are here, store up a large supply during the wet season, and empty it out in numerous springs, yielding it up to the surface when the summer heat sends the roots of vegetation downward to absorb it like so many sponges. The soil of the central western portion of the State, and the valley of the Red river is extremely fertile, and varied in color all of which is dry, or capable of being easily made so. That of the pine regions is more sandy, and not as well adapted to agriculture, and that of the north eastern corner, north of Lake Superior, stubborn and incapable of cultivation, producing little but trees and ferns.

LUMBER INTERESTS.

The region of pine extends through the entire northern range of the State, except in the Red River valley, its southern limits cropping into Clay, Ottertail, Todd, Benton, Monroe, Isanti and Chisago counties. The forests of Rum river being the nearest, have thus far been the most used for lumbering, but beyond is a century's stock when these are exhausted. The forests on the St. Croix and Crow Wing, and many other smaller streams, are also extensively used by lumber men. Lumber has thus far only been cut on the banks of the streams, and floated down to the various saw mills on the large rivers, the largest number of which are at St. Anthony Falls. Slack water navigation for lumber rafts is made by building dams on the small streams coursing through the pine forests. Into these logs are tumbled, fastened together and rafted down to the larger streams, where small rafts are united into larger ones and floated to market. The lumbermen thus employed are fine, muscular specimens of manhood. It is enough to make a puny knight of the quill wish he was a lumberman, to see one of these stalwart forms leaping from one floating log to another, handling them with his pike pole in his dexterous style, bringing them in parallel ranges and pinning them together. God speed you,

my hearties! Never forget that your occupation has been honored by one of the best men America ever produced. The lumber of the St. Croix and its tributaries is marketed mostly along the Iowa shore, as it reaches the Mississippi river below the Falls of St. Anthony. These forests are very extensive, and have as yet only been commenced upon.

STOCK RAISING

Is attended with great success here. To enter into this profitably, a herdsman is necessary to keep the cattle from straying on the prairies. One man, well mounted on a horse trained to the business, will keep 500 head of cattle together. They thrive well by grazing from April until November. During the remaining months of the year, they are fed from the stack. The prairies, especially in the western counties, yet afford, and will for many years to come, unlimited quantities of grass for mowing, free to the stock raiser. The grass for ten tons of hay can be mowed in one day with a mower and two horses; the same can be raked with a horse rake in half a day, and can be stacked in half a day more by two men with a horse pitchfork. It will thus be seen that the expense of keeping stock here is but a trifling item, while the price of cattle is not more than twenty per cent. less than in New York market. The cost of taking to market steers worth \$100 each, being not more than \$20 per head. It is better, however, to market cattle from here to Illinois or Iowa, before they are old enough to be corn-fed, as corn cannot be raised as easily in Minnesota as in Illinois or Iowa.

SHEEP AND WOOL GROWING.

Southern Minnesota has commenced this important branch of agriculture with the most favorable results, but the business is only in its infancy in the State. These high and airy regions promote health and vigor to sheep, and develop a generous growth of wool. Sheep can endure a great extreme of cold if sheltered from the storms, and practical experiments have already proven that wool growing can be more profitably entered into here than in older States where land and forage are dearer. Pasturage costs only the herding of the sheep, and wintering only the expense of harvesting the grass, as it grows spontaneously on the prairies, and raising what provender they need on the productive soil. Straw sheds are erected at a trifling expense, and afford the best shelter for sheep in the winter. When the wool is clipped it can be sent to an eastern

market for five per cent. on its cost, and it can certainly be raised here for less than one-half the expense incurred in Vermont, where hay is \$20 per ton and corn \$1 per bushel.

WHEAT CULTURE.

Wheat growing is the great interest of Minnesota. The whole surface of the State, except some wet spots and the pine and mineral regions, is admirably adapted to the growth of this important cereal. Here some fields have produced an annual crop of wheat from 20 to 30 bushels to the acre for eighteen successive years. The method of harvesting it is expeditious. Eight men and ten horses, with a heading machine, will cut and stack 20 acres in a day, averaging not far from 400 bushels of wheat. About the same force will thresh and clean it in a day, after it has gone through the sweating process in the stack. To plow the ground for this amount of wheat required eight days with a man and team. To sow it and barrow it in required four days labor of a man and team. Here then we have an aggregate of 28 days labor for a man and 44 days for a horse, and 30 bushels of seed wheat, which produces a result of 400 bushels of wheat in the granary, which is worth here, at this time, \$1.40 per bushel.

POTATOES.

The yield of this valuable esculent in all parts of Minnesota, is not exceeded by that of any other State. The average number of bushels per acre here being greater than in Iowa or Illinois, and equal to the best crops raised in the New England States.

CORN.

Can this be grown in Minnesota? In reply I would say, it is as sure a crop here as in any other part of the world, even in the Valley of the Red river. Dent corn is raised in southern Minnesota, but the flint corn only is a sure crop in the northern portions. This, however, is not a corn State, being vastly inferior to Iowa or Illinois in the culture of this grain.

OATS, BARLEY AND RYE.

These are successfully cultivated here. The same conditions of soil and climate which make wheat so great a success proving equally auspicious to other small grains.

FRUIT.

Minnesota will never excel in fruit growing. Berries can be successfully cultivated here, and perhaps apples, after the most

hardy and proper varieties for its climate have been ascertained. There are yet but few apple orchards, from which only light crops have been obtained. Crab apples are a spontaneous growth through the State, and the various kinds of Siberian Crab appear as equally successful. Red Astracan and other hardy varieties of apples will yield moderate if not large crops. Wild grapes abound on the river bottoms, some varieties of which are eatable. Wild plums grow in great profusion, and are an excellent fruit. Cranberries abound in the marshes of the central and northern portions of the State.

PRODUCTS OF THE DAIRY.

The sweet grasses which grow on this elevated region are highly favorable to the production of milk. The census returns show that the average quantity of butter made from a cow here is only equaled by that of the Eastern States, taking precedence of Iowa, Illinois or Missouri. In no part of the world can cows be kept cheaper than here, while butter and cheese have all the cities of the lower Mississippi for a convenient market.

HAY.

This staple for farmers is so spontaneous in the State, that it only need be said, the supply is measured by the capacity of the mower and force employed to stack it. The tame grasses have only been cultivated to a small extent. Where they have been introduced, they produce large burdens of hay.

MAPLE SUGAR.

The sugar tree forests of Minnesota are not surpassed in the world. They occupy the whole range of the Big Woods south of the Pine region, and extend far north into it. Its manufacture is an important item in the region where the maple abounds.

HOPS.

These grow wild in the forest margins, and are picked and sold to the breweries. They could be cultivated with profit.

MISCELLANEOUS AGRICULTURAL PRODUCTS,

Such as buckwheat, hemp, flax, tobacco, sorghum, honey and beeswax, are produced in considerable quantities here.

CLIMATE.

The latitude and elevation of Minnesota cause great extremes of cold, the thermometer sometimes sinking to 40 degrees below zero. These extremes seldom last more than a day or two, but give place to clear skies, accompanied with a temperature too cold to admit of the least softening of snow, but very comfortable and pleasant. The amount of snow is seldom large, but good sleighing generally lasts through the winter, and often into March. When the snow goes off it is seldom renewed. The interval between the freezing and growing season being subject to less fluctuations and eccentricities here than in more southern latitudes, the rigors of winter lasting about a month later than in central Illinois, while the plowing season is not more than two weeks later. The summer season is marked by a prevalence of south and west winds and seasonable showers,—the thermometer often for a short season ranging as high as 90 degrees, but not averaging over 70. The latter days of August generally modify the heat of summer. After this, cooler nights and bracing autumnal airs, ranging from 65 degrees, graduating down to 30, make up the interim between summer and winter.

The following is from Whittlesey's Report.

"Observations upon temperature which have been kept at Superior, at the west end of Lake Superior, for more than ten years, show that the climate around this part of the lake is much milder than it is further east. The snow is less deep, and the climate better adapted to agriculture. This is in accordance with a well established principle of meteorology, that proceeding westward on lines of latitude, the climate becomes milder. I have seen Indian corn growing at Red Lake in latitude 48 degrees north, which produced 80 bushels to the acre. Further west in Minnesota, and north in the Valley of the Red river, in Canada, and in the Valley of the Saskatchewan, is a tract large enough for several States, where wheat flourishes as a certain and abundant crop. Those who consider this region to be a barren waste, make a gross mistake. Minnesota, Dakota, and the country to the north of it, including the Valley of Lake Winnipeg, constitute an important country, destined to be the main resource of North America for wheat."

HEALTHFULNESS.

Minnesota has a high reputation for the salubrity and healthfulness of her climate. Such pretensions are no empty name. Fever and ague, except in some places on the lowest rivers, is unknown. Phlegmatic diseases, including diseases of the re-

spiratory organs and consumption, are rarely known to afflict any who have lived here a few years. Many cases of incipient consumption have been cured by a residence here. The sanitary influence of the atmosphere is attributable to its exemption from unwholesome miasmatic influences, owing to the great altitude of the country; and besides this, its numerous small lakes and successive groves contribute to it a high degree of softness. The temperature of winter is very uniform, and the air is so dry that the extremes of cold are not objectionable to the invalid.

PRINCIPAL TOWNS.

ST. PAUL.

This is the capital of the State. It is situated on the east bank of the river, its site being elevated about fifty feet above high water. This place has great natural advantages, being just below St. Anthony Falls at the practical head of the navigation of the river, which is justly called "the father of waters," and one which has more miles of navigable waters, with its tributaries, than any other stream in the world. Besides these natural advantages, which belong to St. Paul alone, and which cannot be wrested from her (for rivers, unlike railroads, will run where nature has made them), she, in common with her sister, Minneapolis, is the centre of the elaborate railroad system already in process of development, making long reaches to the east, west, north and south, grasping at the waters of Lake Superior with her outstretched left arm, beckoning to the commerce of the great lakes and even of the Atlantic through the St. Lawrence, and with her cunning right hand reaching the great carrying trade of the Hudson Bay territory and Pacific coast through Puget's Sound, locking her iron heel to eastern channels of trade over the various routes through Chicago and Milwaukee. There is now a continuous line of railroad from these cities to the Atlantic cities. St. Paul is the principal wholesaling emporium of the upper Mississippi, many of the merchants in the towns north and west of her being dependent on her for their groceries, fabrics and agricultural implements. Foundries, tanneries, machine shops for engine repairing and other machinery, car works, large carriage shops, where the finest vehicles are made as well as

the more substantial kind, and various other smaller establishments for the manufactory of other wares, are already established here. The population of 1865 was 13,012. It has increased rapidly since, and it requires no prophet's eye to see that this city and Minneapolis are destined to rank among the largest inland cities of the United States, located as they are where the navigation of so large a stream is arrested by a power which in itself is capable of supporting a large manufacturing city, St. Anthony's Falls.

MINNEAPOLIS.

This city, occupying the west bank of the river, enjoys her railroad privileges and connections in common with St. Paul. She is ten miles distant, at the Falls of St. Anthony. To this immense water power she owes her rapid growth in numbers and in wealth, which growth dates principally from the year 1864. The Falls are sixty-four feet high, and the quantity of water passing over them, if economized to the best advantage, is sufficient to employ the inhabitants of a large city to give it direction. The din of machinery through the day drowns the noise of the falls, but when the stillness of night comes, a charm is thrown around the hour of repose by the soft murmur of the falls and the delicious aroma of the air in this elevated region. A large machine shop where locomotives are made and repaired, a paper mill, several pail, tub and barrel factories, carriage shops, iron foundries, planing mills, sash, door and blind factories, eight or ten large grist mills, and a large number of saw mills, where the largest logs are converted into lumber by a gang of saws at a single revolution of the mill carriage, are in operation here. The lumber, when sawed, is conducted over the rapids by long aqueducts, through which it floats to the still waters below the falls. Here it is made up into rafts and marketed where ever it will bring the highest price on the Mississippi river. Its population in 1865 was 4,607, since which it has nearly doubled, judging from the number of newly erected dwellings.

ST. ANTHONY

Enjoys the manufacturing privileges of the falls in common with her younger but larger sister, Minneapolis, across the river. The two places are connected by a substantial suspension bridge, and will probably sometime be incorporated into one city. The population of this place in 1865 was 3,499, since which time she has shown signs of healthy growth.

ANOKA

Is situated on elevated ground at the confluence of the Mississippi and Rum rivers, and on the St. Paul and Pacific railroad. Its large water power, together with its contiguity to the extensive pineries on the latter stream, are the sources of its prosperity. Extensive saw and grist mills are erected here, and a fair trade is conducted with the surrounding country. Population in 1865 was 849; it is much larger now. It is the seat of justice of Anoka county.

DAYTON,

At the mouth of the Crow river, is situated on a fair elevation on the west bank of the Mississippi. It has several saw mills and a stave factory, propelled by the water power on the Crow river.

ST. CLOUD,

The county seat of Stearns county, is on an elevated bank of the Mississippi river at the mouth of the Sauk. It enjoys a large trade with the surrounding country. Several saw and grist mills propelled by steam, do a fine business here. It is situated three miles below the Sauk rapids, in an eligible position to avail itself of the benefits of its water power by means of a race. The population of this place in 1865 was 2,065, since which time it has rapidly increased. The St. Paul and Pacific railroad passes by it on the opposite bank of the river. It is distant from St. Paul by railroad, 76 miles.

BELLEPLAINE

Is on the east side of the Minnesota river, and is connected with St. Paul and Minneapolis by the Minnesota Valley R. R. It is the present terminus of the railroad, 50 miles distant from Minneapolis and 40 from St. Paul. It is also connected with the Mississippi at Ft. Snelling by steamboat navigation on the river. Under the stimulus imparted by its recent railroad connections, this place is rapidly increasing in wealth and numbers. Saw and grist mills and other machinery are in operation here and a good trade conducted with the surrounding country. Population in 1865, 1,853.

CHATFIELD

Is situated on the north bank of Root river, in Fillmore county, on a broad, smooth plain, elevated a terrace above the bottom of the river. It supports one bank, a bookstore and a corresponding number of general stores. It has a population of about 1,500 inhabitants and ample room for more on its beautiful site.

FARIBAULT,

The county seat of Rice county, is pleasantly located on the Cannon river, 50 miles from St. Paul, and connected therewith by the Minnesota Central railroad. It is also connected to Winona by the junction of this railroad at Owatonia, with the Winona and St. Peters railroad. This place has about 3,000 inhabitants, and, in the enjoyment of a healthy growth in numbers and wealth. The country around is admirably adapted to all branches of Minnesota farming.

HASTINGS

Is on the bank of the Mississippi river, at the junction of the Vermilion, elevated 50 feet above high water, distant 32 miles from St. Paul, and connected with it by the St. Paul and Pacific railroad, Winona branch, and also connected to Winona by the same road, to be completed at an early day. This place enjoys rare commercial facilities, both by railroad and river, and presents a lively appearance to the passer by, on the river steam-boats. Several saw and grist mills and a capacious grain elevator are located here. It has a population of 3,000 and a fair annual increase. The falls of the Vermillion river, at this place, afford a fine water power as well as a pleasing landscape.

LE SUER,

The county seat of Le Suer county, is on the line of the Minnesota Valley railroad, situated on the east side of the Minnesota river and surrounded by a rich agricultural country, well timbered.

MANKATO

Is at the great elbow of the Minnesota river, on the line of the Minnesota Valley railroad. The country around is the most fertile in the State, giving great future promise to this important point, through which much of its commerce must pass. It is the head of navigation on the river during low stages of water. Population 8,000 with a rapid upward tendency.

NEW ULM,

Rendered historical by the inhuman massacre of its inhabitants by the Indians, in 1862, is pleasantly situated in Brown county, of which it is the seat of justice. A thriving population of about 1,000 inhabitants, mostly German, are now resuscitating the place. It finds an easy market by steamboats on the Minnesota river during favorable stages of water. The Minnesota Valley railroad is to pass through this place.

PRESTON

Is situated on the south branch of the Root river, in the centre of Fillmore county, of which it is the seat of justice. It has a valuable water power and a beautiful site for a town.

SHAKOPEE

Is on the south bank of the Minnesota river and connected with St. Paul by the Minnesota Valley railroad. It is a beautiful village of 1,250 inhabitants in 1865.

MONTICELLO

Is a handsome town at the confluence of a small stream with the Mississippi, in Wright county. It enjoys a water power on which mills are erected.

WATAB,

The terminus of the St. Paul and Pacific railroad branch line, is the county seat of Benton county. It is destined to become a large town when its railroad connections are completed onward to Crow Wing.

CROW WING

Is yet in the wilds opposite the mouth of the Crow Wing river, at its junction with the Mississippi, amidst a fine lumber region. The St. Paul and Pacific railroad will cross the river at this place when completed.

LITTLE FALLS,

The Capital of Morrison county, possesses a fine water power which is yet but partially improved. This is destined to become an important point for the manufacture of lumber from the convenient forests there about.

STILLWATER,

The county seat of Washington county, is a thriving town on the St. Croix river, 16 miles from St. Paul. It is the termination of the Stillwater branch of the St. Paul and Pacific railroad. When this road is completed, it will have railroad communication with the central emporium of Minnesota. Its commerce on the St. Croix river, is the chief source of its prosperity; this is chiefly lumber. Population in 1865, 2,145. A railroad is in contemplation from this point to Bayfield, Wis.

LAKE CITY

Is a beautiful town intrenched amidst the highlands west of Lake Pepin. It contains about 1,500 inhabitants.

LA CRESCE NT

Is in the extreme north-east corner of Houston county, on the bank of the Mississippi. A railroad will soon pass through this place, connecting Winona to La Crosse; this interspace forming the last link in the chain of railroads connecting Minnesota with the sea board.

WABASHA,

The county seat of Wabasha county, is eligibly situated on the Mississippi a short distance below Lake Pepin. Its commerce on the river is principally derived from the wheat trade from the surrounding country. The Winona branch of the St. Paul and Pacific railroad is to pass through here.

RED WING

Is a fine commercial town, on the bank of the Mississippi, in Goodhue county, of which it is the seat of justice. The bold bluffs of the river loom up almost perpendicular, in places, to the height of 350 feet, west of the town, back of which are fine trout streams, coursing through the elevated country, trenching through the precipitous bluffs, thus forming a rich diversity of landscape delightful to summer tourists. The trade of the place is chiefly derived from the cereals, of which it is a large depot. The Winona branch of the St. Paul and Pacific railroad is to pass through this place. Population about 3,000.

CANNON FALLS

Is a neat village on the Cannon river, in Goodhue county. There are two charming cataracts here, one on the Cannon and the other on the Little Cannon, a branch emptying into it at this place; both are improved for mill purposes, but have a capacity for more.

ROCHESTER

Is a large town in the centre of Olmstead county, of which it is the seat of justice. It is located on the Zumbro river. The rapids here afford a fine water power which is used for various manufacturing purposes. This place enjoys a large trade with the rich agricultural country around, which trade is greatly facilitated by easy transportation to the Mississippi over the Winona and St. Peters railroad. Its population in 1865 was 2,663; it is much larger now.

RUSHFORD,

Thirty miles west of La Crosse, is the present terminus of the Southern Minnesota railroad. It is a place of growing importance, handsomely situated on the Root river.

WINONA.

This is the metropolis of southern Minnesota, and the principal commercial depot for its agricultural productions. The site of the city is well elevated above high water, on the dry level prairie which intervenes between the river and bluff. The Winona and St. Peters railroad commences here; it is now finished to Owatonia, where it connects with the Minnesota Central railroad, leading to St. Paul. The Winona branch of the St. Paul and Pacific railroad is also soon to connect this city direct with St. Paul, by a railroad along the west bank of the Mississippi to Hastings, where it crosses the river and reaches St. Paul on the east side. These railroad communications, together with her commercial facilities on the Mississippi, insure to her a large and increasing trade. Population, 5,760.

PRICE AND QUALITY OF LANDS.

The best of wild lands, consisting of rolling prairie or grub lands, with occasional oak openings, can be had in the following counties, for from \$5 to \$10 per acre: Washington, Ramsey, Hennepin, Dakota, Goodhue, Wabasha, Winona, Houston, Fillmore, Olmstead, Dodge, Steel and Rice. Improved farms can be bought in the above counties for from \$15 to \$30 per acre. The above are the most populous and productive in the State, because they are the oldest. Other counties in the western portions are equally fertile, but not as well settled. In Mower and Freeborn counties, the best wild lands can be had for \$5 per acre. Grass lands predominate here. Farms can be bought here for from \$10 to \$15. In Le Sueur, Carver and Scott counties, which were mostly composed of dense forests, until improved, wild lands can be had for from \$3 to \$10 per acre, which would be heavy timbered lands, and farms for from \$12 to \$25 per acre. In Waseca and Blue Earth counties, good wild land consisting of prairie and grub land are worth from \$5 to \$8 per acre, and farms from \$15 to \$25 per acre. In Faribault county, which is prairie well timbered, good wild lands can be had for from \$3 to \$4 per acre. In Martin, Watonwan and Brown counties wild lands are worth from \$2 to \$3 per acre; amount of timber quite small. West of these counties, and south of Minnesota river, the lands are open for entry at government price, except what are claimed by land grant railroads. In the counties of McLeod, Sibley and Nicollet, wild lands are worth from \$2 to \$6 per acre, which would be prairie land with timber at a convenient distance. In the counties of Chisago, Anoka, Sherburn, Benton, Stearns and

Wright, wild lands are worth from \$2.50 to \$8.00 per acre; more diversity of quality than usual occurring in these counties, portion being occupied with Tamarac Swamps with grassy marshes not so favorable for agriculture. The lands in Meeker, Monongalia and Kandiyohi counties being wild lands, are worth from \$2.50 to \$5.00 per acre composed of prairie, with some timber. Nearly all other lands north and west of the above mentioned counties, not claimed by land grant corporations, are subject to entry or pre-emption at government prices. This area of government land comprises the western and northern portions of the State; the western portion being mostly prairie, and the northern, mostly timber lands. A belt of land 100 miles wide, commencing at the south-east corner of the state, and extending up the Mississippi to St. Paul, thence north-west-erly far enough to include Otter Tail county, would comprise the best lands in the State. The poorest land in the State lies along the Mississippi, above Sherburn county, and thence north-easterly to the state limits. The land on the Red river is reported as well adapted to the culture of wheat. It is estimated that a population of 10,000 are now settled there including those on the British side of the line, and also those on the Dakota side of the river. There has been no government survey yet beyond Clay county, and consequently no established price for land.

PUBLIC LANDS & OTHER LANDS FOR SALE.

The public lands of this State lie in the western and northern portions. Several different railroad land grants take each alternate section, being the odd section for ten miles each side of their respective roads which pass through them. No even sections within ten miles of a land grant railroad, can be entered at private entry. Outside of that limit they can be taken, but odd sections cannot be taken except beyond the twenty mile limit. But all government lands not covered by land grant railroads are subject to pre-emption or homestead locations. A homestead of 80 acres within six miles of a railroad, or 160 acres beyond that limit, can be secured by an expense of only \$14, by such as reside on it five years. Lands can be pre-empted for the government price, which is \$2.50 per acre within six miles of a railroad, and \$1.25 outside of that limit. All odd sections of public land within the 20 mile limit, are reserved exclusively for homestead and pre-emptions. The lands granted to the different railroad companies, comprising several million acres, can be bought at but a small advance above government prices, also large amounts of land bought for

speculative purposes by non-residents, are for sale here, often at low rates, especially where said lands are in the hands of heirs. The amount of land already surveyed and for sale in this State, at this time, cannot be less than 10,000,000 acres of wild lands, counting both public lands and railroad lands. The largest portion of this is prairie land, but probably one fourth of the whole amount consists of the two combined in suitable proportions for farms. There are yet immense tracts of pine timbered lands, subject to pre-emption or can be entered at government price as soon as surveyed. The whole area of the State is 51,454,802 acres; of this amount 21,923,872 acres have been surveyed, leaving 29,530,930 acres yet to be surveyed. There are six land offices in the State, located as follows: at Winnebago City, Faribault county; at St. Peter, Nicollet county; at Greenleaf, Meeker county; at St. Cloud, Stearns county; at Taylor's Falls, Chisago county; at DuLuth, St. Louis county.

COMMERCIAL FACILITIES.

The navigation of the Mississippi river, which traverses a country over 2,000 miles in extent, is abruptly terminated at St. Paul by the Falls of St. Anthony, just above. The magnitude of its commerce has a world-wide reputation, and need not be detailed here. Above these falls the river is navigable for steamers, during favorable stages of water, for 350 miles, but from far above this distance, and from many a tributary, are floated rafts of lumber from the primitive forests of this new region. This latter class of bottomry, if it may be so called, constitutes the only commerce of the Mississippi above St. Anthony. It remains for future generations to render this stream navigable to its very head, if their necessities require it, when the country is settled. The St. Croix river is navigable from the falls of St Croix to its confluence with the Mississippi at Hastings. Lumber is the chief article of commerce on its waters. The Minnesota river courses through the central portions of the State, having its source in Big Stone Lake, on the western boundary of the State. It is now navigable as far as Fort Ridgely, a distance of over 250 miles. A moderate expenditure would make it navigable to its source, and thus connect with the head waters of the Red river. These rivers all have a southern outlet, and connect with the grand system of Mississippi valley navigation. The Red river forms a navigable coast line, along the western shore of the State, from Pembina, near the line of British territory, to nearly 400 miles above at

Shayenne and other places. Both the Minnesota and Red rivers have a common head in Big Stone lake. Should future necessities require it, they will some day be made to clasp each other in deeper embraces, and be plowed by the keel freighted with the products of husbandry. At present the furs and peltries of the Hudson's Bay Company are the principal articles of commerce on the Red river. Lake Superior washes the north-eastern shore of the State, affording favorable harbors in the inlets emptying into her waters, the principal of which is on the St. Louis river at Superior City. The commerce of this place is but small, and never can be large till a railroad connects it with the navigable waters of the Mississippi.

RAILROAD SYSTEM.

St. Paul and Minneapolis are the central focus of a railroad system, encompassing within its toils every part of the State, with an ultimate end in view, to make important connections with the great lines of travel reaching the Atlantic on the east and the Pacific on the west. The Saskatchewan, the Assinibone, and the whole of the Hudson's Bay country, having its western outlet through Puget's sound, must have its eastern outlet through Minnesota. Owing to the corrupting power of wealth and the feudal retentions of the British lords of this soil, the country has been withheld from settlement in order to prolong their lease of it for fur hunting. When the pressure becomes strong enough to break through these barriers, a large tide of emigration must seek this country; their track will be over the great chain of lakes and through the State of Minnesota. This carrying trade Minnesota railroads are sure of. Then, as to her share in the carrying trade over the Central Pacific railroad, this depends on the amount of commerce of the western terminus of Lake Superior. The State legislature has made a grant of 1,000,000 acres of swamp lands, to aid in the construction of a railroad connecting this important commercial point with the Mississippi river at St. Paul, while congress has made twelve land grants to aid in the construction of as many different railroads in the State, as follows:

THE FIRST DIVISION OF THE ST. PAUL AND PACIFIC RAILROAD, BRANCH LINE

commencing at St. Paul, running up the east bank of the river to Watab, thence by the St. Paul and Pacific railroad to Crow Wing, across the river via Otter Tail City, down the Red river valley to Pembina. This road is now running to St. Cloud, a distance of 76 miles. It has a grant of ten sections to the mile.

THE FIRST DIVISION OF THE ST. PAUL AND PACIFIC RAILROAD, MAIN LINE,

leading from St. Anthony to Montana, via Big Stone Lake. This road is now running to Wyazetta, on lake Minnetonka, 15 miles distant from St. Anthony. It has a grant of ten sections to the mile.

THE MINNESOTA VALLEY RAILROAD,

leading from Minneapolis and St. Paul to Sioux City, Iowa, thence to connect with the Central Pacific railroad. This road has a grant of ten sections to the mile. It is finished to Belle Plaine, a distance of 50 miles.

THE MINNESOTA CENTRAL RAILROAD,

leading from Minneapolis and St. Paul to Austin, thence to form a junction with the McGregor and Western railroad in Iowa. This road is now running to Owatonia, a distance of 75 miles. It has a grant of ten sections to the mile.

THE ST. PAUL & PACIFIC RAILROAD, WINONA BRANCH,
leading from St. Paul to La Crescent via Hastings, Red Wing and Winona. This road is now finished to Hastings, a distance of 20 miles. 750,000 acres of swamp lands are granted to aid the construction of this road.**THE WINONA AND ST. PETERS RAILROAD,**

leading from Winona to the State line at Lake Benton, thence to tap the Central Pacific railroad. This road is finished to Owatonia, a distance of 80 miles, where it connects with the Minnesota Central railroad leading to St. Paul. It has a grant of ten sections to the mile.

THE SOUTHERN MINNESOTA RAILROAD,

leading from opposite LaCrosse, Wis., through the southern tier of counties in Minnesota, thence to connect with the Central Pacific railroad. This road is finished to Rushford, a distance of 30 miles. It has a grant of ten sections to the mile. The two latter roads are the great eastern thoroughfares of southern Minnesota, over which the surplus productions of their fertile soil, will be marketed.

THE NORTHERN PACIFIC RAILROAD,

connecting Lake Superior with Puget's Sound, not yet located but required to go north of the 45th parallel. Twenty sections to the mile inside of the State and 40 sections to the mile through the Territories are granted to aid in its construction.

THE SUPERIOR BRANCH OF THE ST. PAUL AND PACIFIC RAILROAD,

connecting Lake Superior with the main line at some point between St. Cloud and Crow Wing. Ten sections to the mile are granted to this road.

THE MISSISSIPPI AND LAKE SUPERIOR RAILROAD,
connecting St. Paul with Lake Superior. This road has a grant ten sections to the mile and 1,000,000 acres of swamp lands besides. Thirty miles nearest to St. Paul are graded.

THE HASTINGS AND RED RIVER RAILROAD
is to go up the Minnesota Valley, crossing the Yellow Medicine, thence running to Big Stone Lake. It has a grant of ten sections to the mile.

THE ST. PAUL AND PACIFIC RAILROAD, STILLWATER BRANCH,

connecting the valley of the St. Croix with St. Paul, a distance of sixteen miles, has a grant of ten sections to the mile. The line has been surveyed and located, but is not yet in process of construction.

MANUFACTURING INTERESTS.

The Falls of St. Anthony, where the Mississippi tumbles over a water-worn declivity 64 feet in height, is among the largest water powers of the world, and is equal to that of Lowell, Mass., which supports a population of 30,000. The St. Croix falls are next in importance. Both of these water powers being at the practical head of navigation of their respective streams, an additional value attaches to them. Pokegama Falls, Little Falls and Sauk Rapids, on the Mississippi are large water powers; also Cannon Falls on the Cannon river, in Southern Minnesota, besides numerous other powers on the Cannon, Zumbro, Minnesota and Root rivers, and their branches, not far removed from the navigable waters of the Mississippi. With all these facilities manufacturing is too much confined to the sawing lumber and grinding of cereals. The few foundries, woolen factories, tanneries, carriage shops, boot and shoe factories, etc., should be multiplied. Why should not the idle water powers abounding in the State be employed in the manufacture of those articles which her citizens need? Wool is transported a thousand miles and comes back woven into cloth with,

the following charges : freight both ways, insurance and forwarders' commission, the profits of at least four different classes of wool and cloth mongers, and the cost of spinning and weaving. If this could be done at home, the consumer, instead of paying these extra expenses, would find a community of artizans ready to purchase his agricultural products at his own door. Minnesota has as good natural advantages for woollen factories, and even cotton factories, as any other part of the world, the raw material being easily transported thither on the Mississippi river. These wants are worthy the attention of those mechanics in the old world who labor incessantly in pent up atmospheres to merely subsist. To such I would say, leave your hard task masters, come to Minnesota and set up for yourselves, and in a few years you will be surrounded with plenty, and braced up with strength, instead of being an aged and worn-out servant at the mercy of your employer. The question here, Can I get a job, is not asked by the skillful mechanic; but the consumer asks him, Will you do this job for me at your own price? Could the surplus population of Birmingham be transported into Minnesota, how this whole region would ring with the clink of hammers, and hum with the whirl of spindles. Only a small capital is necessary at first, as a nucleus; the profits would soon furnish the rest.

France and England, with far-seeing and deep sagacity, have shielded and fostered their manufacturing interest till it has filled their respective nations with wealth, much of which has been drained from abroad. New England has enriched herself by her manufactures, not because she has the materials, but because she has the operatives and the water power. Minnesota has both the water power and the material and will soon have the operatives, and as to the protection, a higher law than man can make, has vouchsafed this to her. Her central position and her home market and western demand, as the country becomes settled, these are sufficient protection; all she needs. The lords of Manchester may sit enthroned in that hide-bound policy which has given them princely fortunes and the gout, and made beggars of their operatives, but with all their immense facilities for manufacturing, Minnesota has the means to relieve herself from tribute to them, and will do it. The subject is arresting the attention of capitalists, and will soon take practical shape in this favored State where the laws are too liberal to allow an oppressive aristocracy of task masters, where supply and demand balance each other with even-handed justice and mete out to the producer his just portion, untrammeled by courtly favors or sinister legislation.

MINERAL RESOURCES.

Partial surveys have been made of the north-east corner of the State, to ascertain its mineral wealth. The results thus far produced have been principally scientific. Confidence, capital and human muscle are wanted to make them practical.

COPPER

is found to exist along the shore of Lake Superior, on Knife and Stuart rivers.

IRON ORE

of a superior quality is found around Portage and Pigeon rivers, on the shores of Lake Superior. More perfect geological surveys of this rock-bound region must develop great mineral wealth. An immense deposit of Iron Ore is also reported on Mushkadens river in Itaska county. Large amounts of copper and iron have already been shipped from the State.

SLATE,

in large quarries, has been discovered in Carlton county, on the St. Louis river.

SALT.

Numerous Salt springs exist on the Red river, twelve of which have been granted to the State by Congress, and must eventually be a source of large income.

SAND STONE.

The fine white sand stone in the bluffs at Ft. Snelling are supposed to be of great value as material for glass manufacture.

POTTER'S CLAY,

in its natural beds of disintegration, are reported in several parts of the State.

CLAY,

for brick, similar to the famous Milwaukee brick, is common.

BUILDING STONE

of the best quality abounds in the bluffs of most of the rivers, consisting chiefly of the various formations of lime stone, also some quarries of granite.

COAL

has been discovered on the Cotton Wood river, near New Ulm. The thickness of the vein or its extent is not reported.

PEAT

is found in the counties of Hennepin, Ramsey, Wright, Fillmore, Anoka, Sherburn, Benton and Stearns, and will undoubtedly be found in others. It has as yet been but little used, other fuel being plenty in its localities.

GOLD.

The presence of this much sought mineral is visible among the bluff ranges of Vermillion Lake, but as yet has not repaid the gold hunter's labors.

MINNESOTA TRIPOLI.

A bed of this valuable commercial article, about twenty feet in thickness, and extending for half a mile along Brown's creek, has been discovered near Stillwater. Its excellent quality has been verified and endorsed, by Prof. J. R. Eckfeldt, of the U. S. Mint, Philadelphia, Prof. Joseph Henry, of the Smithsonian Institute, Washington, Prof. Charles T. Jackson, of Boston, Prof. C. U. Shepard, of Amherst College, Mass., and also by many practical silversmiths and machinists. A company has been organized for its development, of which ex-Governor Stephen Miller, of St. Paul, is President.

The following table presents the assay, made by Prof. Charles U. Shepard, of six specimens, taken from different and extreme points of the above bed.

Nos.	1.	2.	3.	4.	5.	6.
Silica,	77.00	82.50	77.50	77.00	77.00	77.50
Carbonate of Lime with traces of Magnesia,	12.00	7.75	10.75	12.00	11.50	10.75
Per-Oxide of Iron, Alumina,	7.00 1.50	7.50	9.00	8.50	9.00	9.00
Water,	2.50	2.25	2.75	2.50	2.50	2.75
	100.00	100.00	100.00	100.00	100.00	100.00

Professor Shepard adds, as follows: "This Tripoli will have to undergo no preparation to be fit for immediate use. It may go into commerce as it is; at least after its weight has been reduced six or eight per cent. by pulverization and kiln drying."

MINNESOTA—ITS FUTURE.

It is impossible to set bounds to the varied sources of wealth which the future has in store for this State. The first growth of wealth in all States is apparent to every one; so plain that all can see it at a glance. Wild and hitherto worthless lands are fenced in and made farms of, and increased in value from nothing, to from \$10 to \$100 per acre, according to their location and state of cultivation. This is the agricultural development of a State, and although greater than any other single interest and the foundation of them all, is yet small compared to all others combined, such as mineral, lumbering and the almost infinite variety of manufacturing interests, encouraged by good political economy of well governed States. But these are only the super-structure and frame work, the finishing up of which will require the fostering care and handiwork of the immense corps of emigrants who are rapidly filling up this State. Prairies must be utilized with hedges and adorned with groves. Forests must be opened to the sun and planted with corn. The whole country must be traversed by railroads, leaving no part distant from the sound of the whistle. These are the veins of the body politic in which flow its circulation. Rivers must be bridged for roads, and dammed for mills, and even the waters of the shining lakes must be locked up within their banks and retained to swell the rivers at low tide when manufacturing lags for want of more water. Higher than all these comes the intellectual and social interest, the highest a State is capable of possessing, and one which can only be elevated to its highest standard where the natural elements exist to aid it. These are found in the pure air and fine landscape scenery of Minnesota, imparting activity to the brain. The outcropings from this mine of wealth, will be shown in neat villas, bowers and arbors, school houses, churches, seminaries, colleges, astronomical observatories and other laboratories of science. The time is not so distant as some may imagine, when these will be erected; for where else can they find a more congenial site than the great elevated plateau of North America? Here they will be abundantly sustained by a dense population, inhabiting the favored domain of this beautiful and healthy State, so large a portion of which is capable of the highest cultivation. These may seem like dreams, while the State yet wears her pinafore, as she does now, figuratively speaking, but

this will soon be thrown aside and her herculean limbs of manhood will march on, increasing in the swiftness of their pace till these dreams become a reality. To doubt this would be to doubt not only the stability of our government, but the natural law which has made this latitude the nucleus of wealth and literature throughout the world. The natural increase of population in a new and healthy State like Minnesota, is far greater than that of older States. Add to this the immense emigration which annually centres here and its natural accumulation of new wants, such as mechanics, artisans and teachers, and we behold the wilds of the State rapidly taking on the apparel of cultivation and all the hopes of advancement in the rapid progress of realization. Conquests and inroads upon fallow ground are permanent. Pioneer settlements always advance and never retrograde. A charm hangs around the spot where the first tent was pitched and the first furrow plowed. The first scars made in the virgin soil seem big with future promise.

August Laugel, in his book on America, says: "His foot planted on the centre of the continent, the robust farmer of the West, feels himself its king and master. The true American, in his eyes, only begins on the western slope of the Alleghany chain; the national pride that burns in his heart is not fed by democratic passion alone; it is also inspired by the sight of those boundless plains, open to his ambition, by those giant rivers, some running to the polar regions, others to the tropic seas. The old States have remained, in many respects, dependent on Europe. They borrow from it not only goods and machines, but ideas. The West entirely escapes this European influence. By, I cannot tell what inexplicable charm, what powerful fascination, those who go toward the Rocky Mountains never look back to the Atlantic. The emigrant from New England never regrets on the prairies the hills where he was born; the Irishman never dreams of going back to his damp island; the German himself, faithful still to his native language, becomes unfaithful to his country. From these varied races springs a new race, strong as the generous soil that rears it, proud and independent."

This is more emphatically true in new States, where local pride is the predominant feature, in which the whole community are united, and will contribute its full share to the work of future development of the State.

**TABLE SHOWING THE GROWTH OF PROPERTY FROM
1849 TO 1861.**

Year.	No. of Assessed Counties.	Valuation of Real & Personal Estate.	Rates of Increase Per Cent.	Population.
1849,	- - - 1	514,986	—	4,049
1850,	- - - 6	806,437	56	6,077
1851,	- - - 3	1,282,128	59	7,000
1852,	- - - 8	1,715,835	33	10,000
1853,	- - - 6	2,701,437	51	14,000
1854,	- - - 13	3,508,518	29	32,000
1855,	- - - 18	10,424,157	197	40,000
1856,	- - - 24	24,394,395	134	100,000
1857,	- - - 31	49,336,678	102	150,087
1858,	- - - 37	41,846,778	—	156,000
1859,	- - - 40	35,564,492.70	—	162,000
1860,	- - - 41	36,753,408	3	172,022
1861,	- - - 41	38,712,427	5	200,000

The table shows an average increase in the assessor's estimates of property in Minnesota up to 1857, the last year of its territorial history, of 82.6 per cent. yearly. The decrease in 1858 and 1859 was a natural result of the commercial revulsion of 1857—of the dissipation of the fictitious estimates of real estate, and of the new adjustment of values in all kinds of property to the more contracted basis of monetary circulation.

PRE-EMPTION.

The provisions of the Homestead Law require—

1. That the applicant should be the head of a family.
2. Or over 21 years of age.
3. Or have performed service in the United States army, in which case he may be a minor.
4. He must not have borne arms against the United States, or have given aid or comfort to its enemies.
5. He must be a citizen of the United States, or have declared his intention to become such.
6. He must reside upon, and improve the farm chosen, for the period of five years. He can then enter into full possession of 80 acres, within six miles of a railway, or of 160 acres beyond the railway line, and at the prescribed time receive a full title, at the entire cost of \$14.50. This homestead, whether obtained by pre-emption or purchase, is guaranteed to him and his family, as against all prior debts or claims.

CENSUS OF 1865.

Counties.	Total Population.	Males.	Females.	Families.	Soldiers and officers in actual service of U. S. June 1, 1865.	Colored.
Anoka,	2,260	1,201	1,059	451	95	6
Benton,	505	278	227	104	16	
Blue Earth,	9,201	4,964	4,297	1,711	341	28
Brown,	2,211	1,144	1,067	476	56	
Carlton,	28	16	12	5		
Carver,	8,704	4,558	4,116	1,706	349	
Cass,	87	28	14	18		1
Chisago,	2,175	1,155	1,020	416	144	
Crow Wing,	178	89	89	50		
Dakota,	12,476	6,562	5,914	2,826	487	28
Dodge,	6,922	3,259	2,963	1,194	196	
Faribault,	4,795	2,517	2,218	926	186	
Fillmore,	17,524	9,267	8,257	3,994	572	
Freeborn,	5,068	2,996	2,692	1,111	168	8
Goodhue,	14,890	7,779	7,051	2,899	494	18
Hennepin,	17,076	8,887	8,299	3,155	571	94
Houston,	9,788	5,109	4,679	1,775	382	2
Iananti,	458	289	214	98	39	
Jackson,	294	128	111	47	4	
Kanabec,	81	18	13	6		
Lake,	154	76	78	36		
Le Sueur,	7,884	4,061	3,778	1,462	256	24
McLeod,	2,457	1,881	1,126	499	80	
Mnomin,	117	67	50	20		
Martin,	1,480	764	666	288	79	
Meeker,	1,229	658	576	242	24	
Mille Lac,	961	177	154	69	16	
Morrison,	796	480	386	146	54	1
Mower,	5,150	2,719	2,491	1,026	110	4
Nicollet,	5,019	2,606	2,418	987	111	8
Olmsted,	15,176	8,006	7,170	2,709	476	1
Pine,	64	48	21	19	9	
Ramsey,	15,107	7,697	7,410	2,726	591	111
Redwood,	95	68	32	18	8	
Rice,	10,977	5,869	5,118	2,118	448	19
St. Louis,	294	168	126	61	12	10
Scott,	8,621	4,488	4,188	1,552	278	9
Sherburne,	819	498	381	158	29	
Sibley,	4,786	2,518	2,268	981	188	
St. Amons,	7,367	3,881	3,496	1,421	146	1
Ste. Croix,	4,932	2,598	2,884	984	161	8
Todd,	117	69	48	26	6	
Wabasha,	11,868	5,929	5,484	2,019	860	1
Waseca,	4,174	2,189	2,035	782	99	1
Washington,	6,780	3,590	3,190	1,274	178	
Watonwan,	249	130	119	46		
Winona,	15,277	7,987	7,290	2,772	405	39
Wright,	5,098	2,707	2,321	964	268	8
Totals,	260,099	181,828	118,776	46,989	8,898	411

PRICES OF AGRICULTURAL PRODUCTS.

In 1860.

In 1866.

Prices are fluctuating, but range as follows:	
Wheat, from 50 cts. to 65 cts.	\$1.20
Rye, from 20 cts. to 25 cts.	.75
Barley, from 30 cts. to 40 cts.	.90
Oats, from 12 cts. to 18 cts.	.50
Corn, from 30 cts. to 40 cts.	.75
Butter, from 7 cts. to 8 cts., or from 10 cts. to 12 cts. for choice rolls.	.30
Pork, from 2 cts. to 4 cts.	.16
Eggs, from 6 cts. to 10 cts.	.20
Cheese, from 9 cts. to 10 cts.	.20
Beef, from \$1.75 to \$2.75.	6.00
Potatoes, from 15 cts. to 20 cts.	.50

The large advance in prices between the years 1860 and 1867 shows the increased profits of farming. This advance in prices is partly attributable to the late railroad communications with eastern channels of trade.

EXPORTS.

	1859.	1860.
Wheat, bushels,	869,625	1,576,666
Flour, barrels,	114	5,721
Wheat, and Flour reduced to wheat,		1,605,871
Rye, bushels,		8,886
Barley, bushels,	10,000	19,623
Oats, bushels,	164,500	185,195
Corn, bushels,	41,876	30,071
Potatoes, bushels,	128,400	55,941
Hides, value,	\$15,000	\$47,981
Wool, pounds,	7,000	25,887
Butter, pounds,	8,886	36,272
Ginseng, pounds,	203,000	245,434
Furs, value,	\$160,000	\$186,155

The above table, taken from the census of 1860, is the latest full report at hand. It would be a safe estimate to calculate the present average exports at four times this amount. The export of Wheat for the year 1865 was about 10,000,000 bushels.

Pig Iron and Copper are now exported from the mineral regions.

EDUCATION.

In the State of Minnesota, the legal provisions for education contemplate,—

1. Common Schools.
2. Normal Schools.
3. A State University.
4. A State Agricultural College.

COMMON SCHOOLS.

In no State is the endowment for the support of schools more ample, or better secured for the benefit of posterity. All are equally entitled to its advantages, and a thorough education is within reach of the humblest child residing in the State.

In every township, two sections of land are set apart, to be sold or leased for this purpose, amounting in the aggregate to more than 2,500,000 acres.

As showing the present condition and prospects of the "Common School Fund," I quote the following from the last report of the Superintendent of Public Instruction for the State, made to the Legislature at its session of 1864:

The rapid increase of the current School Fund accruing from interest on the principal arising from the sales of school lands, forms a subject, as well of surprise as gratification.

The balance in the Treasury subject to distribution at the coming February apportionment, \$27,999 28

Amount of interest on permanent fund for	
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1864,	- - - - -	38,640 00
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Estimated receipts from other sources,	- - - - -	8,380 72
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Making a grand total for the fiscal year ending in December, 1864, of \$75,000 00

The amount per capita at the last appointment, was 23 cents. At the ensuing apportionment it will amount to 45 cents at least, and during the fiscal year to \$1.15; and this, notwithstanding the fact, that the number of persons reported between the ages of 5 and 21 years exceeds that of last year by upwards of 14,000. Taking the number of scholars reported the current year as a basis of division, and the showing is \$1.94 $\frac{1}{2}$ to each, a sum which would maintain a respectable school three months in the year, without additional aid—paying in a school of 50 scholars, a male teacher \$32 per month, and in a school of 75 scholars, an additional female teacher \$16.

This exhibit springs from an experiment of but two years of sales, and involves the disposal of 90,440 acres of land only, being little more than one-fourteenth of the whole number of surveyed lands in the State.

Supposing the balance of these lands to be sold at the minimum price of \$5 per acre, and we have a total the interest on which, at seven per cent., would produce an annual school fund of nearly half a million of dollars. The lands unsurveyed are left out of the account.

The subjoined condensed summary of statistics of the Common Schools of the State, presents a comparative view of their progress and condition for the years 1864 and 1865.

	1864.	1865.	Increase.
Whole number of Districts,	1,788	1,824	36
Whole number of Districts reported,	1,402	1,495	93
Whole number partially reported,	17	106	89
Whole number entirely unreported,	119	223	104
Whole number persons from 5 to 21 years,	74,965	87,244	12,279
Whole number in attendance, males,	28,064	26,165	8,111
Whole number in attendance, females,	21,738	24,899	2,661
Whole number in attendance, both sexes,	44,787	50,564	5,777
Total average daily attendance,	26,381	32,259	5,938
Total number of Teachers,	1,888	2,008	115
Total amount paid Teachers,	\$110,024 97	\$124,568 71	\$14,538 74
Total number of school houses,	994	1,112	118
Total value of school houses,	\$224,500 25	\$280,829 51	\$55,829 26

NORMAL SCHOOLS.

These schools were established by Act of the Legislature, passed in the year 1858, for the purpose of educating Common School Teachers in the duties of their profession.

Of the result so far, of this important undertaking, we are informed in the official report of the Normal Board for 1864, that in regard to the first and only school of the kind, yet established in the State, it had "imparted much valuable instruction to a large number of teachers, and that probably no other Normal School has been established which has accomplished so much with less expense to the State."

AGRICULTURAL COLLEGE.

By act of Congress, 120,000 acres of land were donated to establish a "College for the benefit of Agriculture and the Mechanic Arts."

This has been accepted by the State, and it is believed the selections have been so judiciously made that an ample fund will soon be subject to the purposes for which the grant was intended.

LIST OF NEWSPAPERS PUBLISHED IN MINNESOTA.

Name of Paper.	Daily or Weekly.	Publishers name.	Politics.	Location.
St. Paul Press.	D. & W.	Press Printing Co.	Rep.	St. Paul.
St. Paul Pioneer.	D. & W.	Pioneer Printing Co.	Dem.	St. Paul.
Staats Zeitung.	W.	Woof & Saunders.	Rep.	St. Paul.
Volks Blatt.	D. & W.	C. H. Lienau.	Dem.	St. Paul.
St. Paul Commercial.	W.	Ramaly & Hall.	Neutral.	St. Paul.
Minneapolis Chronicle	"	Chronicle Printing Co.	Rep.	Minneapolis.
State Atlas.	"	Atlas Printing Co.	Rep.	Minneapolis.
St. Cloud Times.	"	A. J. Reed.	Dem.	St. Cloud.
St. Cloud Journal.	"	Wm. B. Mitchell.	Rep.	St. Cloud.
Hastings Conservator.	"	Irving Todd.	Rep.	Hastings.
Independent.	"	C. Stebbins.	Rep.	Hastings.
Hastings Union.	"	Alex. Johnson.	Dem.	Hastings.
Stillwater Messenger.	"	A. J. Van Vorhes.	Rep.	Stillwater.
Valley Herald.	"	F. E. DuToit.	Dem.	Chaska.
Manterville Express.	"	C. E. F. Bancroft.	Rep.	Manterville.
Wilton Weekly News.	"	James E. Childs.	Rep.	Wilton.
Taylor Falls Reporter.	"	Chas. W. Folsom.	Rep.	Taylor's Falls.
Winona Republican.	D. & W.	D. Sinclair & Co.,	Rep.	Winona.
Winona Democrat.	W.	Gile & Green.	Dem.	Winona.
Preston Republican.	"	W. W. Williams.	Rep.	Preston.
Weekly Argus.	"	M. C. Russell.	Dem.	Shakopee.
Lake City Leader.	"	Perkins & McMasters	Rep.	Lake City.
Rochester Republican	"	Shaver & Eaton.	Rep.	Rochester.
Rochester City Post.	"	Leonard & Booth.	Rep.	Rochester.
Chatfield Democrat.	"	J. S. McKenney & Co.	Dem.	Chatfield.
Central Republican.	"	A. W. McKinstry.	Rep.	Faribault.
Wabashaw Herald.	"	Daggett & Rose.	Rep.	Wabashaw.
Republican Journal.	"	Tappan & Co.	Rep.	Owatonia.
Mankato Union.	"	Wm. B. Griswold.	Rep.	Mankato.
Mankato Record.	"	J. C. Wise.	Dem.	Mankato.
Mower Co. Register.	"	Davidson & Co.	Rep.	Austin.
St. Peter Tribune.	"	Martin Williams.	Rep.	St. Peter.
Goodhue Co. Republic.	"	Davis & Park.	Rep.	Red Wing.
Red Wing Argus.	"	E. B. Otis.	Dem.	Red Wing.
Glencoe Register.	"	C. A. Bennett.	Neutral.	Glencoe.
Houston Co. Journal.	"	Journal Printing Co.	Rep.	Caledonia.
Free Homestead.	"	J. L. Christie.	Rep.	Winneb'o City
Carver Independent.	"	F. Belfoy.	Dem.	Carver.
Freeborn Standard.	"	Parker & Smith.	Rep.	Albert Lea.
Anoka Union.	"	Union Printing Co.	Rep.	Anoka.
Monticello Statesmen.	"	George Gray.	Rep.	Monticello.
South West.	"	Carr Huntington.	Rep.	Blue Earth C'y
New Ulm Post.	"	L. Bogen. (German.)	Rep.	New Ulm.
St. Peter Advertiser.	"	T. M. Perry.	Dem.	St. Peter.
Owatonia Democrat.	"	Cal. Wood.	Dem.	Owatonia.

MINNEHAHA.

This famous cataract is on an affluent of the Mississippi river, which is the outlet of Lake Minnetonka. Quietly the brook rolls along in its little channel, which is only a slight indentation on the face of the elevated and level country through

which it passes, till it gets within a mile of the Mississippi river; here it unsuspectingly drops into the abyss below, over sixty feet deep, sending back a silver cloud and a soft song. As the tourist first approaches the descent to get a view, he is filled with a sensation of fear lest he should make a mis-step and tumble into the gorge below, and of curiosity to see a stream laugh. He advances cautiously, especially when he gets close enough to feel the ground vibrate beneath his feet. His first glimpses of the falls are caught through the dense foliage which almost conceals the whole view till the chasm is entered. Down its steep banks the visitor carefully treads till the bottom is reached and he is face to face with Minnehaha. He looks up to the top where the whole stream preserves its form for a few feet in its descent, and follows with his eye the falling waters to the depths below, where they whiten, and foam, and boil, and finally relieve their agitation by taking down the wild gorge toward the great river. Through this deep and wooded ravine, they run rapidly over the rough declining bed of rocks, which lay in masses along the channel, for the next half mile, beyond which they terminate in a mill pond—an emblem of checkered and fluctuating passages in human life. These falls are situated on the west side of the Mississippi river, about half way between Fort Snelling and Minneapolis. The railroad crosses the creek about fifteen rods above the falls, but a view of the cataract cannot be had from the cars.

SYLVAN LAKES.

In the stilly silence, by the white man unseen,
Here the changing seasons have come and returned,
These trees, unpruned in their natural green,
Have shaded the banks of the lakes serene,
While the red man's fires beneath them have burned
On the ground unplowed by the share of steel,
Untrod by the steed with the iron heel.
For ages these waters have mirrored the skies,
And the erratic clouds which have o'er them been flung,
The bald-headed eagle that over them flies,
And the curtain of green that around them is hung.
This face has been dimpled by many a storm,
And pelted with hail and been kissed by the wind,

And shadowed by many a dusky form
 While aiming his dart at the stag and the hind.
 The deer and the buffalo kine have been here,
 When the robin was chanting his twilight song,
 And slakened their thirst from the waters clear,
 While they cautiously pricked up each listening ear,
 For the sound of the stealthy red man's thong.
 Winter has clad them with icy embraces,
 But no school boy has played on their glittering faces,
 In circles and tangents on sandals of steel,
 Circumvolving the plane with his rollicking reel.
 The soft tread of lovers these banks never prest,
 When Luna was shining and the world was at rest,
 When love in its whispering vows could be plighted
 And petitions to Cupid and Hymen indited.
 These shores never echoed the sound of oration
 At a fourth of July or Thanksgiving ovation,
 Or smiled at the tidings that Richmond was taken,
 Sumter deserted and Charleston forsaken,
 And Sherman's proud army was "saving its bacon."
 Reluctant I leave these sweet sheltered recluses,
 Fit abodes for the sages or volatile muses.

A change is before thee,
 Soon, soon to come o'er thee,
 Your waters unused to the hum of the mill,
 Must awake from your sleep and your destiny fill,
 The white man is coming around you to teem,
 In the nation's own strength, in her new regime.

Minnesota, Sept. 1866.

PROGRESS OF POPULATION.

By the territorial census of 1849, the population of the Territory of Minnesota, embracing what is now Dakota, was 4,780. Of this number, the returns show 723 for settlements now outside of the State, leaving the population of the State as now bounded, 4,057. The United States census of Minnesota Territory for 1850, showed a population of 6,077. Subtracting

therefrom the number given the previous year for Dakota, not otherwise ascertainable, the result for the State, as now bounded, would be 5,854.

The following table, then, exhibits the growth of population in Minnesota for ten years, within the limits of the present State :

Year.	Authority.	Number.
1849—Territorial census,	- - - - -	4,057
1850—United States census,	- - - - -	5,854
1857—Territorial census.	- - - - -	150,087
1860—United States census,	- - - - -	172,022
1865—State census,	- - - - -	264,600

Note.—The actual official returns of the State census of 1865 were 250,099; but 18 new counties did not report, and besides this deficiency, many precincts in other counties were wanting. The estimated population of these unreported places is 14,501, which, added to the official returns, makes 264,600, as shown in the above table. The period embraced in the above statistics is from 1849 to 1865, 16 years, in which time this State has almost multiplied her population by six, or otherwise expressed, has doubled her number of inhabitants every three years and two months. At this rate of increase the problem of the future of Minnesota is not a difficult one to solve, as shown in a foregoing article.

BIRTHS.

Year.	Population.	No. births.
1856,	100,000	2,956
1857,	150,087	5,251
1858,	152,000	6,080
1859,	161,250	6,611
1860,	172,022	7,137
Total number of births for the period,	- - -	28,087

NATIVITIES OF POPULATION.

By the census of 1860, the population had its origin in the following countries, viz:

From the United States,	- - - - -	112,227
Great Britain and Dependencies,	- - - - -	26,078
Germany,	- - - - -	17,943
Norway and Sweden,	- - - - -	11,692
Switzerland,	- - - - -	1,150
Other foreign countries,	- - - - -	1,860

ISOTHERMAL LAWS OF MIGRATION.

With the exception of a solitary African, of indeterminate latitude and who, with tropical magnificence of hyperbole, claims a continent for his country, we have not a single inhabitant born south of the equator. A dozen persons excepted, our whole population is from the North Temperate Zone, and within this Zone 99.50 per cent. of our population comes from a belt not more than twelve degrees in width, while 98 per cent. is from a belt only ten degrees in width.

The migratory movement then, it is evident, is not a fortuitous concourse of atoms, or an indiscriminate nomadism, but acts under fixed geographical limitations. It will be found, upon examination, that it has fixed geographical tendencies, which have something of the method and universality of fixed laws, and that the course of emigration traced upon the map follows definite and well-worn channels; that it is not an undirected drift, but a river, broad indeed and swollen by numerous lateral tributaries, but marked all along by abrupt and well defined shores.

The tendency to emigration is proximately an effect of temperament or race. But the peculiarities of race rest ultimately on physical conditions, the chief and dominant element of which is climate. The Southern races the Old World nurtured under soft and enervating skies, do not emigrate. It is from "Northern hives" of Asia and Europe that those barbarian hordes issued which overwhelmed the empires of Assyria, Greece and Rome, and who, in their turn, sunk under the despotic lassitude of the climes they had conquered. This remains as true now as ever, though the influence of race determines the forms of this northern tendency to migration. The Mongol Tartar is a nomad, restlessly roving in a fixed orbit of change. The Caucasian or European, on the other hand, emigrates to settle and build up colonies. In this great work of planning and peopling new States, the Germanic is always the leading power. If it was the genius and the destiny of the Roman to conquer, that of the German is no less decidedly to colonize. This energetic race, which now rules the world on land and ocean, has pushed the ennobling conquests of civilization and Christianity to the remotest corners of the habitable globe, and spread its language, its literature, its laws, its institutions over continents thrice as great as all Europe. But the

influences of climate which have imbued this mighty race with the rugged and imperious energy of the north, control also the course of its migrations. An essentially northern people, it is a northern climate only which supplies the conditions of that ambitious and complex education of thought and action; of that rich and varied social development which is the life and ambition of the European. He seeks new lands only as new planes of social ascent, as opening a new and higher career of mental and moral exaltation. If we examine the history of European emigration we shall be struck with the fact that nearly its entire volume has tended in the direction of the like climates of North America, and that when it has not, its attempts at colonization have been failures.

India, conquered by the British arms a century ago, has offered all the rewards of cupidity in vain to British emigration. Africa, exposed without defence to the rapacity of any European nation which might have desired its possession, has remained almost unmolested under the domain of its savage children. South America, overrun four centuries ago by greedy hordes of Spanish and Portugese adventurers, proved a fatal acquisition to its conquerors, and after centuries of stagnation, scarcely yet comes within the domain of civilization.

Australia and New Zealand have only recently succeeded, by the fictitious lure of gold, in diverting a small part of the European emigration, and there is no proof that these colonies will form any exception to the destiny of fruitless decay which has marked all attempts to naturalize the northern races in southern or tropical climates. It is only in North America that the principle of social life and growth has survived the transportation of the Germanic and Celtic populations of Northern Europe, and not only has the social energy been able to perpetuate itself here alone, but here alone has it found the physical conditions which call forth the full measures of its powers.

North America contains to-day over 30,000,000 of Europeans and their descendants. Outside of North America and their native seats in the North Temperate Zone, there are not five millions of the offspring of Europe in all the rest of the world, though it was in the South that the first and grandest historic attempts at conquest and colonization have been made. Moreover, of the vestiges of European migrations which still exist in more southern zones, for the most part sunk with all their nobler characteristics in a degrading amalgamation with the native tribes, the larger proportion was planted by the southern nations of Europe—the Spanish, Portugese and Italian. On

the other hand, North America has been peopled almost entirely from Northern Europe, from the British Islands, Germany, the Netherlands and France, and latterly from Norway and Sweden. Of the thirty millions white inhabitants of North America, over nine-tenths came from those countries occupying the district or belt of Northern Europe between the parallels of 48 and 58 degrees, and of these same thirty millions of North Americans, twenty-two millions, or seventy-three per cent., dwell in the northern districts or belts between the parallels of 38 and 46 degrees. In 1850 there were 1,942,000 persons of European birth resident in the United States. Of these 93 per cent. were from the *northern districts of Europe* above mentioned, and of the whole foreign population of the United States, less than seven per cent. were in the Southern States—that is to say, over ninety-three per cent. were in the Northern States—and including the foreign population of Canada, over ninety-six per cent. of the whole European emigration to North America have sought homes between the parallels of 38 and 46 degrees. It is evident that the source and general flow of emigration is within this northern belt of climate, having a breadth of about 10 degrees in Europe and of about 8 degrees in America. An anterior and fundamental operation of the same law which concentrates within this belt the cities, the commerce, the railways, the prosperous and liberal civilization of the world, also collocates within it the governing, civilizing, organizing and progressive races of the world.

CONVERGING ISOTHERMS OF MIGRATION TO MINNESOTA.

Enough has been said to establish the principle that the general and ultimate tendency of emigration is to follow lines of equal mean temperature in the upper belt of the Temperate Zone, in other words, to follow climates having similar systems of commercial flora. The influence of this law is not only demonstrated by the distribution of the emigrant masses in one grand isothermal belt, but by all the details of the migratory movements within that belt.

Scotland, one of the most northern or coolest of European districts, has given to Canada, the most northern and coolest of American districts, the major portion of its population.

In 1850 three-quarters of all the Norwegians in the United States were in Wisconsin, which, like Norway, lies upon the northern border of the isothermal belt of emigration. On the other hand, the emigration from England, Ireland and Germany

has tended towards the Middle States, or towards the southern border of the belt. The character of the emigration to Minnesota confirms this principle. Minnesota unites the climate of the middle States of America and Europe with that of the extreme northern districts. Lying upon the northern border of the belt of migration, its mean winter temperature is the same as that of Canada, New England and Norway, holding the same northern position in the belt; but its summer temperature is that of Pennsylvania and northern Italy, on the southern border of the belt. The lines of spring and summer temperature bend northward through the Mississippi Valley, gradually carrying the springs and summers of the southern up to the northern border of the belt, till at St. Paul, the line which expresses the winters of Montreal and Copenhagen meets the line which represents the summers of Philadelphia and Venice. Thus the climates, and, of consequence, the productions which in Europe and the Eastern States are found in positions wide apart, approach each other towards the West till they meet and partially blend in Minnesota. It is upon these converging lines of temperature that emigration moves to the interior of the continent. For the sake of illustrating this convergence let us divide our geographical belt into two bands, in one of which we will place the Baltic districts of Russia, Norway, Sweden, Denmark, Scotland, New England, New York and British America; in the other, Germany, Poland, Belgium, Holland, Switzerland, Northern France, England, Ireland, New Jersey, Pennsylvania, Ohio, Indiana, Illinois and Iowa.

In the upper band, along its whole northern border, a deep fringe of the evergreen coniferæ marks the effects of the same severe and long winters. In the lower band the vine forms a distinction on both continents. These are the extreme characteristics of the opposite divisions. In America the upper band is the zone of maximum wheat production, while the lower band is the zone of maximum corn production. These bands, with their characteristic staples and economies, interlap in Minnesota.

The northern band contributes to our population 70,526 immigrants.

The southern band contributes to our population 65,187 immigrants.

If we could distribute these elements in equal bands of climate, the relative contributions of the southern band would be largely increased.

Our population is thus about equally made up from the northern and the southern currents of emigration, from the cool and

the warm borders of this great zone of city builders. Looking to details, we find that the number of Norwegians in Minnesota in 1860 (11,692) is nearly equal to the whole number who were in the United States in 1850 (12,678). On the other hand, if we except New York and Wisconsin, we have more Prussians in Minnesota than were in all the United States in 1850. The whole German immigration to Minnesota (17,289) compares thus with States farther south, relatively to population: Minnesota 10 per cent., Wisconsin 11 per cent., Iowa 4 per cent., Illinois $4\frac{1}{2}$ per cent., Indiana 3 per cent. These figures show pretty conclusively that the German immigration tends to the upper belt of northwestern States. The same is true of the Irish immigration. The Irish population of Minnesota in 1860 was $7\frac{1}{2}$ per cent. of the whole—about the same as Wisconsin in 1850. In Illinois in 1850 the Irish element was but 3 per cent., in Indiana but $1\frac{1}{2}$ per cent., in Iowa 5 per cent.

The ratio of English immigrants is the same in Minnesota, Iowa and Illinois, though it is three times as great in Wisconsin. The ratio of immigration to Minnesota from Holland, Belgium and France is much greater than to any of those States. We have 67 Swiss to every 10,000 of our population, Wisconsin 45, Illinois 19, Indiana 7, Iowa 9.

Let us turn now to American sources of immigration. Ninety-five per cent. of our whole American immigration is from the belt already described between the parallels of 36 and 48 degrees, or more correctly, between the summer isotherms of 62 and 72 degrees; comprehending the British Provinces and the northern United States. To illustrate the tendency of emigration, we may, as before, divide this belt into bands.

1. The district upon the northern border, or upper band, comprising the British Provinces, Michigan and Wisconsin together, give us 16,689 immigrants.

2. New Jersey, Maryland, Delaware, Pennsylvania, Ohio, Indiana, Illinois and Iowa, constituting the southern band, gave us 25,668 immigrants.

3. New England and New York, constituting a middle district between these two bands, gave us 40,836 immigrants.

Thus the northern band gives us about 19 per cent. of our American immigration, and the southern band about 28 per cent., while the middle district, or New England and New York, gives us nearly as much as both the others, or 43 per cent. of the whole. Concisely, we have more immigration from the southern than from the northern border of the emigrant belt, and as much from the middle district as from all the rest.

CAUSE OF THE LARGE PROPORTION OF BIRTHS.

The reasons of this extraordinary fecundity are obvious. It is only the young who emigrate. Our adult population is almost universally in the prime of youthful vigor—at an age when women are most fruitful—and in such circumstances as remove the social obstacles to matrimony arising from pride or poverty, while the isolation of a sparsely settled agricultural community adds intensity to all the natural motives which lead men to seek the companionship of the other sex. I have not yet tabulated the ages of our population, but a partial examination shows that over nine-tenths are under the age of 40 years, and four-fifths under the age of 30 years, while over two-fifths, or about 70,000, are at the most fruitful period of life, between twenty and forty.

This large predominance of the youthful classes in our population is, however, defeated of its full effect upon the natal roll from the great numerical disparity of the sexes.

The whole number of males is	- - - - -	92,588
The whole number of females,	- - - - -	<u>78,649</u>
Excess of males,	- - - - -	13,639

These masculine supernumeraries belong to the adult class, and are chiefly resident in our larger towns.

The above was copied from a pamphlet entitled "Progress and Capabilities of Minnesota."

SCHOOL CENSUS OF 1866.

The school census of Minnesota, taken in October, shows 103,518 persons between five and twenty-one years old, against 37,224 last year. At the same ratio, which gave the 250,000 population in June, 1865, this would give 310,000 in June, 1866.

HISTORICAL SKETCH.

The State derives its name from its principal river, the Minnesota, which, in the Dacotah language, signifies sky-tinted waters.

This important region was almost wholly unknown to the Anglo-American long after other sections of the country, far less inviting, had been subjected to the refining influences of industry, science, and religion. Indeed, until within the last twenty-five years, no sound, save that of wild beasts and wilder men, broke the stillness of the awful solitude; and prairie, lake and river were alike the possession of the savage aborigines. But now the steamboat plows its waters, the rail car whistles through its valleys, the axe resounds throughout its mighty forests, and the work of improvement goes forward with almost unparalleled rapidity.

The immigrant, tourist and land surveyor have explored its utmost reach, and observation has accumulated facts, science deduced principles, and enterprise developed capabilities, which give to Minnesota a prominent position among the States of the Union; whilst the beauty of its scenery, the healthfulness of its climate, the wealth of its agricultural and mineral resources, the vastness and variety of its manufacturing facilities, and the grandeur of its commercial position, make it the most desirable of localities for the multitudes coming westward in quest of new homes, new fields of enterprise, and improved advantages for ultimate success.

The history of Minnesota reaches far backward in the dim past, when fierce and war-like tribes were the lords of the land. Nearly two centuries have elapsed since the white man first visited the Valley of the Upper Mississippi; and whilst he has been slowly, steadily, yet surely strengthening his position during this period, and gradually introducing the arts of civilized life, successive generations of the wild natives have lived out their savage life of hunting, fishing, and warfare, and passed onward, leaving no footprints of civilization or improvement.

As early as 1860, Louis Hennepin, a Franciscan priest, in company with two fur traders in the service of a French exploring party, ascended the Upper Mississippi as far as the falls, to which he gave the name of Saint Anthony. Nine years later, the French government took formal possession of

this undefined and almost unknown country, and established their first post on the west side of Lake Pepin.

In 1763, the Northwestern Territory, including Wisconsin and Minnesota, was ceded by France to England; and at the close of our revolutionary war, in 1783, was transferred by that power to the United States. No attempt, however, was made on the part of the Federal government to secure from the Indians any title to the land, until 1805, when a deputation was sent by that power to expel the British traders, who were found violating the laws of the United States, and form an alliance with the Indians.

The result of this mission was the purchase by the United States government, from the Sioux Indians, for the purpose of establishing military posts, of a tract of land nine miles square, at the mouth of the Saint Croix; also from below the mouth of the Minnesota, and up the Mississippi, including the Falls of Saint Anthony, nine miles on each side of the river.

In the summer of 1820 was commenced the building of Fort Snelling, at the junction of the Mississippi and Minnesota rivers. Two years later, the first mill in Minnesota was built, under the supervision of the officers of the fort, on the site of Minneapolis.

The summer of 1823 is memorable for the arrival of the first steamboat, the Virginia, at Mendota, opposite Fort Snelling. A few years subsequent to this period, a company of Swiss, from the Selkirk settlement, located near the site of Saint Paul, and were the pioneers of agriculture in Minnesota.

During the year 1832 the first regular mail was brought to Fort Snelling. Measures were being taken by the government to obtain a title of the Indians, to the lands east of the Mississippi, and in anticipation of the event, settlements had been commenced as early as 1836, on the east side of the river, between Saint Paul and Fort Snelling. In 1838 the Indian title to this section became extinct.

In 1849 was commenced the settlement at Stillwater, on the Saint Croix, and the erection of a saw-mill at that place. Up to this time the section now known as Minnesota had belonged to various successive territorial organizations, having no separate government of its own. But on the third of March, 1849, Congress passed a bill organizing the Territory of Minnesota, whose boundary on the west was the Missouri river, designating Saint Paul as the capital, and appointing Alexander Ramsey, of Pennsylvania, as Governor.

At this time Minnesota was an unexplored wilderness, the home of the savage, the hunting-ground of the half-breed and

the resort of the fur trader and goverment officials. All the lands on the west, and a large portion of those on the east side of the Mississippi, were still in the possession of the original inhabitants. Saint Paul and Stillwater were small villages, and other settlements mere hamlets. The whole population of the Territory was but little over four thousand. At the opening of navigation came the first great wave of immigration. On the first of June the Governor proclaimed the Territory duly organized. On the third of September was convened the first legislative assembly.

Thus, in rapid succession, transpired those events which gave Minnesota a distinct existence, and an important position among the States of the Union. In the year 1851, in consequence of a treaty with the Indians, the lands on the western side of the Mississippi were opened for settlement. Two years later these Indians were removed to their new homes on the Upper Minnesota.

The tide of immigration was now setting in with irresistible force. The emigrant wagon wended its way over bluff and prairie; the wharves were crowded with boats loaded with new comers from the valleys of the Wabash and Ohio, from the banks of the Hudson and Kennebec, from the green hills of Vermont and the ocean shores of Massachusetts; and mingled with these were representatives from nearly every country of Northern Europe. Here congregated the idle wanderer, the man of broken fortune and lost health, the hard-handed laborer, the shrewd, calculating man of business, the restless, keen-eyed speculator, the capitalist, student, and politician; the lady of fashion, and the care-worn mother with the infant in her arms.

Hardly had the fires in the wigwam of the red man died out, when the smoke was seen curling from the cabin of his Caucasian successor.

Villages suddenly expanded into cities; towns sprang up on the water-courses; magnificent schemes were formed for future aggrandizement; money was abundant; and excitement, speculation, and fortune-making were almost the sole pursuits of the masses.

Suddenly came the great financial crisis, in 1857, when speculation collapsed, money disappeared from the market, property depreciated in value with the rapidity with which it had been inflated, and immigration almost entirely ceased.

The inhabitants, made wiser by reverses, began to turn their attention to the first natural source of wealth—agricultural industry. When older States bowed their lofty heads before

the sweeping tempest, the tender sapling bent its fragile form only to rise again to a healthier and more vigorous growth. In 1850, the number of plowed acres was 1900; in 1854, 15,000; in 1860, 488,276; having increased nearly thirty fold in six years.

Thus it appears that the dawn of agricultural prosperity in Minnesota was coincident with the great financial revulsion, and one of its most natural results. But the most important result of this crisis, and that which was peculiarly favorable to the future growth of Minnesota, was the instantaneous check given to speculation in Western lands. In many of the Western States the speculator preceded the emigrant, bought up at government price as soon as they were offered in the market, and still holds in native wildness, some of the fairest sections of the Mississippi Valley. Yet, from a concurrence of circumstances, he scarcely found a foothold on the soil of Minnesota. Here the actual settler preceded the surveyor, and made good his claim to the quarter section to which he was entitled by the Pre-emption Act, as soon as the land came into market; the financial distress kept aloof the speculator, till the Homestead Act saved the public lands forever from his grasp. And now, while large portions of Illinois and Iowa are held by speculators at prices far above the reach of the mass of emigrants, the equally fertile lands of the far healthier State of Minnesota are reserved for the future homes of the thousands who shall yet come from the teeming cities of the Old and the crowded villages of the New World, to reap here the just reward of industry, enterprise and a praiseworthy ambition.

In the summer of 1857 a convention met at Saint Paul for the purpose of forming a State constitution; and in the following year, after nine years of Territorial government, Minnesota was admitted into the Union as a State, with a population of 152,000—having gained more than 147,000 inhabitants in the nine years of its Territorial existence.

In 1850 the population was but 5,830; in 1860 it had reached 172,022: showing an actual increase of 166,692 in ten years. The tabular comparison of this with the growth of the other States of the Union, shows that Minnesota has grown more than three times as fast in the last ten years as the most rapidly growing State in the most rapid period of its growth, and one hundred times as fast as the average increase of the whole Union.

The year 1862 will ever be memorable in the history of the home of the epoch of the terrible Indian massacre, which

hardly finds its parallel in the annals of savage barbarity. The year had opened auspiciously for Minnesota. Congress had just passed the Homestead Act, immigration was on the increase, population and improvement were reaching westward, the fields promised an abundant harvest, and the sound of battle raging in other sections of our common country, disturbed not these peaceful vales; when suddenly came the merciless marauder upon our defenceless frontier settlements, whole families were massacred, villages burnt, and thousands of industrious, prosperous citizens driven penniless from their desolated homes.

Stringent measures have been pursued toward these murderers, many of them have suffered at the hands of the executioner the punishment their barbarities merited; whilst those whose fleetness enabled them to evade capture have been driven far westward, and are still watched by a strong military force. It is believed there can be no possible ground for fear of future Indian hostilities. Many of those who, less than two years ago, fled from their homes in dismay are now returning to recommence their accustomed avocations with the opening of spring.

During the past year the Winnebago Indians, and the remnant of the Sioux not implicated in the atrocities of the preceding year, have been removed from the southwestern part of the State to their new reservation on the Missouri River.

A treaty has been concluded with the Red Lake and Pembina bands of Chippewas, by which the Indian title is extinguished to some 10,000 square miles of territory, embracing the American valley of the Red River, leaving but a small and almost worthless fragment of land now owned by Indians in the State.

In his last annual message the Governor says, "Though more than one-fifteenth of our whole population, by the census of 1860, has been sent to reinforce the armies of the republic, and though several counties have been depopulated by the Indian raid, there is good reason to believe that the number thus temporarily withdrawn from the State have been more than made up by immigration and natural increase, and that our population, which in 1860 numbered 172,022, is not now less than 225,000."—*Minnesota Prize Essay*.

Since this era a new incentive has been given to the flow of wealth and population to the State, by her elaborate railroad system recently planned and in rapid process of execution. The advent of railroads into Illinois as well as other new States, has more than doubled their wealth and population each

décade, and can hardly do less for this State. First, it brings in a large number of laborers to build the roads and quite as large a number of men to operate them after they are built. These are but a sprinkling compared to the flood of emigration which always follows the locomotive, as her shrill whistle echoes over the unoccupied plains of a new country. This new field of industry is now to produce a quieter page in the history of this State, unstained by savage Indian warfare and uninterrupted by the bugle's summons to arms to conquer rebels, a summons so cheerfully responded to by the citizens of Minnesota. The history of this State, however is not destined to be a succession of triumphs on the battle-field, but on the harvest field.

BUILDING HOUSES.

The first want of the new settler is a house. How is this to be obtained ? asks the uninitiated. The solution is easy any where in the region of timbered lands—by erecting log cabins.

The method of building them is as follows: Thirty-six logs, each about 16 feet long, a few shorter ones for the gable ends, four smaller ones for floor sleepers, four for chamber floor joist and five a little longer, say twenty feet long, for ribs to support the roof, are cut and hauled on the spot selected for the house. This done, the neighbors are invited to the raising ; the four foundation logs are placed as sills for the house where it is to stand. Four young athletics, who pride themselves in rapid chopping, are selected and placed one at each corner, whose office is to chop a saddle-shaped angle on one log and a notch in the next one to fit on it. One log after another is thus fitted to its place, till the plates are reached, the logs being laid up cob-house fashion. The roof is formed by shortening each end log and laying the ribs across the logs thus shortened till the ridge pole is reached ; the object of these ribs being to support the clap-boards or shingles covering the roof. These clap-boards are made four feet long and are riven from large oak timber, like barrel staves, only wider. They are nailed to the ribs or secured by weight poles, if nails are not to be obtained. An aperture is cut in the wall for a door and one or two smaller ones for windows, a battened door hung and a few panes of glass inserted, the floors laid, a fire-place built of stone, a chimney of sticks and mud, the interspaces between the logs chinked with billets of wood and plastered with mortar, and the domicil is finished. For the benefit of foreign readers who may never have seen a log cabin, the following cut of one is inserted.



The whole expense of this log house is less than \$100. These rude habitations have been the main dependence of the pioneers of the Northwestern States, especially in the wooden regions. The remembrance of them is associated with manly sports in hunting and a thousand other recollections dear to the backwoodsman, and when the old cabin is substituted for an elegant farm-house, lingering thoughts follow their old tenants through all their luxurious ease which wealth can give. Who can say that Presidents Harrison and Lincoln, when overborne with the cares of State, did not sigh for the quiet happy days when they lived in log cabins.

In places far away from timber log cabins are not built, but cheap cottages of light frame work and boards are constructed as a make-shift till better houses can be built. Lumber is readily obtained at the extensive saw-mills at St. Anthony's Falls, from whence it is easily transported over the different railroads diverging from that point. There are also many saw-mills distributed over the State, which manufacture lumber sufficient for their respective localities.

Excellent stone for underpinning are found in the bluffs of nearly all the streams. Sand and lime for mortar are also attainable in most localities. With all these materials at hand for house-building, Minnesota will soon rank among the first States in the Union for model farm-houses, villas and mansions, although she began with the humble log cabin.

CLIMATIC STIMULANTS TO FRUITS AND SEED.

The season of vegetation in Minnesota and the upper belt of the temperate zone embraces the period between the first of April and the first of October.

Let us compare the temperature of this period in Minnesota and Ohio, which may be taken as the best representative of the Middle States:

	Summer.					
	April.	May.	June.	July.	Aug.	Sep.
Fort Snelling,	46.3	59.	68.4	73.4	70.1	58.9
Marietta, Ohio,	52.2	61.4	69.5	78.5	70.7	68.6

The temperatures of the three summer months in Southern Ohio are thus identical with those of Minnesota, but the Minnesota April is 6 degrees and the May 2.4 degrees cooler than the corresponding months in Southern Ohio; and the closing month of September is 4.7 degrees cooler here than there. It might perhaps be inferred that the superiority in agricultural capacity is on the side of Ohio. This is by no means the case. The comparative coolness of the opening months of the Minnesota spring, and the rapid increase of temperatures from April to June, is a most important advantage, and is precisely the point which the above comparison is designed to illustrate. The April of Minnesota, is still the April of England, and her May corresponds in temperature with the English June; and though cooler than the Ohio spring, they are less liable to destructive frosts from the accompanying dryness of the air.

The practical effect of this comparative coolness of the opening months of spring in Minnesota and of the high curve of summer heats, is to restrain the growth of the trunk and foliage, and *throw the development of the plant into the ripening period*. The very warm southern spring develops the juices of the plant too rapidly. They run into the stalk and blade, to the neglect of the seed, and dry away before the fructification becomes complete. Our cooler springs reverse this process, restrain the undue luxuriance of the stem and concentrate the juices in the development of the fruit.

This is not a mere speculation. It is a recognized climatological law of the development of plants, that the quantity and perfection of the product is in proportion to the degree in which the ripening period is hastened, and the luxuriance of stock and foliage checked.

Blodget says: Speaking of the culture of Indian corn in northern districts: "Though the stem is less in size than further south, there is a greater weight of it grown on equal areas, and the grain is in equal excess. A rich spot of land will show, in a favorable season, in these northern districts where the summer mean temperature is not above 68 degrees, four or five times the quantity produced at the south where the mean is above 80 degrees. In part this may be due to soil and to productive varieties, but it is mainly due to the summer curve of temperature, the hasty growth, the excess of heat while it lasts and the hastened ripening period."

But it is to the learned Dr. Forrey that we owe the most comprehensive definition of this principle. He states, as an universal fact, "that the cultivated plants yield the greatest products near the northernmost limits at which they will grow."

His illustrations embrace nearly every plant known to commerce and used either for food or clothing. Cotton, a tropical plant, yields the best staple in the temperate latitudes. Flax, hemp, &c., is cultivated through a great extent of latitude; but the lint in Southern latitudes, forced into premature maturity, acquires neither consistency nor tenacity, and we must go far north in Europe to find these plants in perfection. Rice is tropical, yet Carolina and Georgia grow the finest in the world. Indian corn is a sub-tropical plant, but it produces the heaviest crops near the northernmost limits of its range. In the West Indies it rises thirty feet high, but produces only a few grains on the bottom of a spongy cob, and is regarded only as a rough provender for cattle. In the Southern States it grows fifteen feet high, and will produce but thirty bushels to the acre. In the rich lands of the middle States it will often produce fifty and sixty bushels to the acre. But in New York and New England, agricultural societies have actually awarded premiums for 125 bushels per acre, collected from stalks only seven feet high. Wheat is a more certain crop in New York, the northern parts of Pennsylvania and Ohio, and the Baltic districts of Europe, than the South, either Europe or America. In the spring it is not forced too rapidly into head before it has had time to mature its farina.

Oats grow in almost every country; but it is in northern regions only, or very moist or elevated tracts, that they produce a good allowance of seed. Rye, barley, buckwheat, millet, and esculent roots might be adduced to illustrate the above principle; for all their habits require a more northern latitude than is necessary to their mere growth in order to perfect their seed.

The above valuable article, taken from "Progress and Capabilities of Minnesota," teaches us that nature supplies all her wants with a bountiful hand. When her conditions press with a strain, she fortifies and compensates the subjects of the pressure, whether in vegetable or animal life. Thus, in cold countries she supplies seeding plants with an extra stock of albumen and also quickens the flow of blood and strengthens the muscles in the animal creation.

PLAN OF A FARM HOUSE.

The following design is recommended to those who wish convenience, comfort and economy. The basement should be built of a thick stone or brick wall. The cellar room and cistern are placed in the centre, where they are protected from

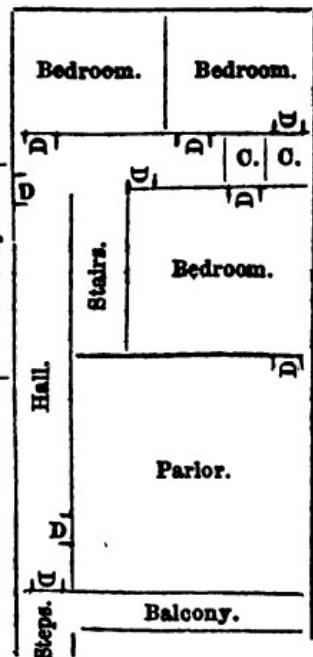
frost by the different rooms which surround them on all sides. The cistern should be built of brick or grout, cemented inside with lime-water cement. The water is conveyed from it to the kitchen by means of a pipe, passing through the pantry. Thus we have all the conveniences for work ready at hand on the same level comprising the basement. A flight of stairs brings you from the sitting room into the hall above, from which any room may be entered.

The outside entrance to the upper part is by a flight of steps, like the style of basement houses in cities. The height of these steps may be reduced by an upward graded walk in front. A balcony along the front end of the house will add much to its beauty. A side balcony may also be built, the entrance to which is from the hall, through an outside door. This need have no steps outside.

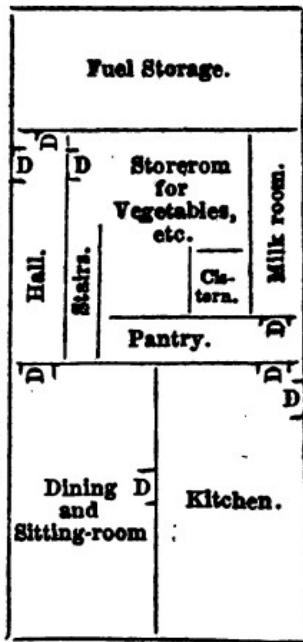
Twenty-four by forty feet are about the proper outside dimensions for this house. Its whole expense in 1860 would be about \$1,000; in 1867, about \$1,600. The chimney is to be built through the partition, between the parlor and bedroom off it. The size of the different rooms may be apportioned according to the wishes of the builder.

The writer has already built a house on a similar plan, which is admired as a model of neatness and comfort.

PLAN OF UPPER PART.



PLAN OF BASEMENT.



LIFE IN MINNESOTA.

The people of this State are full of animation, and awake to all the excitements of the day, being organized on the high pressure principle. The press of business among the trading portion has made them laconic, while success has made them urbane. Ask a business man a question in business hours, he answers you quickly, politely, and turns on his heel with an elastic whirl to revel in the mysteries of wheat in bulk, real estate, or railroad interests. Bargains and transfers of property are quickly made, and the seller invests again, in hot haste to avail himself of the constant rise, lest during the interim of sale and re-purchase too much time might be lost. It may be an anomaly to some, how a community can all get rich trading with each other. The solution is easy. The price of real estate in new countries is regulated by the amount of capital at hand to represent it, which is always too small to hold it as high as the price it will command after a long term of years. The necessity as well as true genius of finance, thus tends to quick turns at prices graduating upwards by reasonable stages, the profits meanwhile arising from the general increase of the value of land as more capital and people come in to appropriate it. One parcel of land is thus sold out to new comers, another larger one bought, divided and sold in a similar manner to a fresh recruit of farmers, artisans and tradesmen who have come to make the State their home and swell the rising tide of real estate value. It is no difficult task to make good investments where populous and wealthy States are springing into existence from the wilds of nature. It requires good judgment in selecting favored locations rather than bantering in prices. It will be a long time before such a plethora of money will abound here as to anticipate future values far enough ahead to monopolize all the good speculations when the intrinsic value of land has such a start of the representative or present nominal value; indeed the next half century can hardly see the latter overtake the former. It is true that property sometimes rises by eccentric leaps upward, but to this day, time has overtaken all such leaps in good localities; the wildest prices of the remarkable speculative era of 1857, being now too low to tempt sellers. Much wealth has already been accumulated by early comers, but it is not sluggish capital waiting in the vault of a bank for a safe speculation. Capital

does not have to create fictitious demand, but natural necessities call loudly for more capital. So hard is this strain that everything except actual comfort is sacrificed to it. Ostentatious display, such as fine houses and furniture, is often put off to a more convenient season, till they can be secured to the new comer to better advantage. Wealthy men often live in rude habitations, extemporized for the time till better ones can be built.

¶ Grace and elegance preside over tables supported by rough trussels, but laden with abundance from this land of plenty. Dignity is clad in coarse fabrics and beauty enveloped in calico. Hollow pretensions and squeamish fears find little favor where a man is valued not for what his ancestors have been, but for what he is now. It is the pride of the people here, assembled together from many different countries and localities, that new records and purposes shall overshadow former mistakes and embarrassments, and nearly all mingle freely in society, with little hesitation, thoroughly imbued with a unanimous spirit of speculation and liberality.

■ Easy grades to wealth beget lively social qualities, and frequent mingling together in parties, fairs and other gatherings. When Boreas ushers in winter with his whistling voice, activity takes possession of every department of life. Elastic limbs and ruddy faces take an extra stock of strength and beauty. Robes, furs and fuel loom up in every household, and the social winter evening is inaugurated. Everything Northern is loved. Dear old New England is not forgotten, but her habits and traditions are cherished and treasured up like an heir-looms relic, lest they should be lost sight of amidst the new order of things, with all its new sympathies and associations. Albeit a feeling takes possession of her erratic children, that they are cut loose from their mother's apron strings, and fairer prospects and brighter skies lure them on to a far higher destiny than fell to the lot of their fathers. The restraints of the old established customs of the land of steady habits, are modified to suit the more bountiful allotment in the new home. The old rigid discipline of economy is gradually relaxed. Ambition takes higher flights, and thought a freer range. Sectional prejudices, and moral and religious dogmas disappear like the dew before the rising sun. The stubborn tenets of the pulpit are toned down, and a new mantle of charity graces the shoulders of Young America on the new stage of life. He has no notion of serving the severe apprenticeship his father did, to obtain wealth and distinction. He sees it before him beckoning to him, and he takes a short cut to grasp it. If he misses it in

the first attempt, he keeps on trying, as if his failure was accidental, and in the end nothing short of dissipation or very bad management can prevent his winning the coveted prize in this bountiful land. Social life in the rural districts, among the farming community, is not less progressive in its own sphere than among the speculative citizens of the town. School-houses, churches, substantial barns and neat dwellings are erected. Good furniture, books and newspapers are common luxuries, and well educated daughters lend a charm to almost every household, fleeting as it is beautiful, for, alas ! for the old folks, higher claims than parental ties are sure to win them from beneath the old roof in this new country, to which so many young men come wifeless. Here people marry young and make the most of the morning of life. They don't wait till they have means to support the wife.

The bread and butter question is a remote consideration and seldom stands in the way of cupid's darts. All the capital a young couple need is one share in the bank, and that a plow share in a bank of dirt. Their united efforts will accomplish all the rest, where labor is both lucrative and honorable. These small beginners generally soon become well to do farmers, surrounded with comforts and luxuries, at the end of five years, superior to the average of those obtained by a life-time of mechanical servitude in large cities. Their success is also attended with a full measure of health and strength, and a long life before them to enjoy it in.

Where the land is crowned with plenty
 'Tis time to wive at one-and-twenty.
 Rapidly the blood doth run,
 Through the veins at twenty-one ;
 Rollicking from brain to toes,
 Here it comes, and there it goes.
 Rushing through the beating heart,
 Out and in with magic art ;
 See Hercules in every limb,
 With manly voice and bearded chin.
 How the heaving bosom swells,
 Where the pent-up passion dwells ;
 Then why should not the oldest son
 Take a wife at twenty-one ?
 Sweet Carrie is the adorning charm,
 He weds the girl and buys a farm.

These weddings are scenes of undisguised expressions of whatever sentiments come uppermost in the mind, such as the practical as well as the hilarious and social. A feast of fat things is prepared; none are too poor to do this, and the wealthy farmers do but little more. They do not take such occasions for ostentatious displays. There is no purse-proud aristocracy here. Muscle is wealth. It is aristocracy possessing beauty without vanity, pride without selfishness, and power without insolence. No devious and narrow margin fringes the mantle of this power. It's as long as the natural life and wide as the broad fields of waving corn which crown the hills and wave in the wind. This aristocracy of muscle, partly hereditary, but mostly due to active out-door life and the climate, is none the less valued on account of its prevalence. It is the general allotment and reward due to a life of field exercise, augmented by the presence of plenteousness within their gates, and exemption from want.

Among the permanent and older settled farmers it is often the case that each member of the family, whether boy or girl, has a horse as especial property. Almost all young ladies are good riders and are often seen bounding over the prairies with a degree of grace rarely equaled by the fair students of city riding schools. The boys are put on horseback as soon as they have thrown off their swaddling clothes. Indeed, they can hardly remember when they could not ride the frolicsome colts to water, or mount the trusty pony to hunt the cows. Ye mothers, who keep your children huddled around coal stoves in large cities and carefully envelope them in flannel when they take the air, think of these little miniature men and women, with their red cheeks and elastic limbs going through the hardening process to fit them for manhood and womanhood, making play of work and working hard at play. They are no pygmies. Their stout bodies are sufficient to support a head with a full measure of brains.

Their school terms are not successive hours and days and months of constant drill, with an unrelenting strain upon their intellect, but they are the respite from vigorous out-door exercise, which stimulates the mind to action and makes it do double work when it applies itself. This is why the children of rural life are more forward than those of large cities; the minds of the former being constantly stimulated by active out-door labor or recreation.

On the frontier the hardy pioneer presents a more elementary phase of society; ruder and less finished in its exterior, but brim full of aspirations. Behold the log cabin, solitary and

alone, ten miles from any other human habitation, in a forest glade, or in the open prairie where the wolves howl and the owl talks and laughs with you at midnight. None but strong hands and courageous hearts attempt these first encroachments upon nature's untamed domain. The fallow ground has to be broken up and planted, and all the varied wants of humanity supplied from the primeval wilds of nature, except what are obtained from distant settlements by traversing untrod plains and crossing unbridged streams. But, lonely as their condition may appear to the reader, instead of being so, it is a life of excitement, where energy, ambition and hope are exercised to their utmost limit, and muscle and strength developed to their highest power. The truest hospitality also reigns supreme here. The cabin floor is often covered with skins for as many hunters as can lay their wiry forms on its surface, and their rough board is spread with copious supplies of bear's meat or venison, which is eaten with such an appetite as frontier people only know, while the scene is enlivened with naive stories, wit and wisdom, from the mouths of such restive and active spirits as are here, because they cannot endure the conventionalism of old established society. These spots, where the virgin soil is first scarred, soon become a nucleus for a tide of emigration, and the settler finds himself surrounded by a populous neighborhood, with all the appurtenances of society, as it is in older countries, except its inevitable modifications adapted to the freer atmosphere of western life. Sometimes, however, his wild, adventurous spirit cannot stand these innovations upon his pioneer style of life, and he sells out and makes another advance westward, where game is plenty and all nature still clad in her own beautiful robes, and society unsoiled by the touch of, to him, demoralized refinement. This class of settlers, however, forms but a small portion of that emigration which has made populous States out of wild nature in such rapid succession as has been done in the past forty years in the great West. But they may justly be called the advance guard to that mighty westward moving host which seems to gather strength from year to year, and cannot stop till the wilds of the West are as densely populated as the rural districts of France, England and Germany. Besides the foregoing classes of citizens, a large number of phlegmatics, hypochondriacs and consumptives annually visit this State to rid themselves of disease by inflating their lungs with pure air. Many of them get cured and, becoming attached to the place, make it their home. The man of low spirits finds solace in his rambles among the beauties of nature which abound here in such

profusion. He mingles freely with those elastic spirits so characteristic of pioneer life; he catches the contagion of progress, and opens a new, immaculate page of life, and writes upon it Eureka. His hitherto circumscribed mind is opened to a new field of thought. To States belong youth, maturity and old age, and their citizens are influenced by these periods. Those who have never lived in new States can form but a slender idea of the enchantment which takes possession of her citizens in watching her progress to wealth and greatness. Whatever is done seems portentous of future enlargement and expansion. Visions of increasing wealth and influence constantly wait on and encourage industry, and lift the mind above the trifles on which it has despondingly dwelt, by turning its current outward to the outer world, to expand and relieve itself, instead of inward to consume itself. The old pendulum-motion routine of life, with its restraints and embarrassments, is ignored and lost; wafted away out of sight by the sanitary breezes of Minnesota.

In this article the reader will observe that the social, secular and sanitary interests have been blended together, with but little form of transition. The justification of this is the fact that these interests are hand-maidens to each other, and so interwoven together that they cannot be separated where ambition is the incentive to industry, business is pleasure, pleasure business, health auxiliary to both, and both auxiliary to health.

LAND OWNERSHIP.—The cultivated farms of the State are owned almost exclusively by their occupants. By the State census of 1865, there were 46,939 families in the State. Three-fourths of this number, by a fair estimate, are farmers, owning their farms, which would make 35,202 real estate owners in Minnesota. From a recent statement in a speech of John Bright, the illustrious English reformer, at Manchester, we learn that a considerable portion of the farming lands of England are owned by about one hundred and fifty lords. These lands are leased out to the yeomanry, who annually improve them, increasing their value by the most approved methods of agriculture, horticulture and landscape gardening; but unfortunately for these sturdy plowmen, this increased value does not fill their coffers, but endows that eternal line of inheritors of real estate, who are to be surfeited with wealth not earned by industry, but vouchsafed to them by English law. If the tenants murmur at unrequited toil, they are told that the conditions cannot be changed without overturning the whole system of British jurisprudence, which

dates back from William the Conqueror, and has moreover gathered strength ever since from the fostering hand of constitutional law. That its meshes and toils completely permeate the warp and woof in the social fabric of the commonwealth of "Old England." This seeming digression from the subject of life in Minnesota is to draw a comparison between the tenant system of England and the land-ownership of Minnesota, and the whole of America as well.

Here the independent farmers are not bound down by chains forged in chivalric ages, by haughty conquerors. Pitiable, indeed, are they who are. To such I would say, flee from an inheritance which dwarfs ambition and stultifies the mind.

What would the yeomanry of the West say, if told to bear a similar grievance?

They would take a very short cut towards a redress, even if it were across the legal or constitutional barriers of a thousand Williams the Conqueror. The people here have not been trained in that docile school of hero worship which will make them bear an existing evil rather than violate a principle planted in the barbaric ages. Albeit, they are the most law-abiding people on earth; always faithful to that higher law, which aims toward the highest prosperity to the greatest numbers; to that law which constitutes their legislatures, their honored and confidential servants, to whom they give but a temporary tenure of power, lest they abuse it. Here the rulers are for the people, not the people for the rulers. Concentrated wealth, especially in land, is dangerous to the welfare of the State. It diversifies its interests by classifying its subjects, and thereby weakens its strength and ability to repel foreign foes, and is also an insidious wedge of disintegration.

No wonder, then, that the people where these elements of weakness exist should have doubted our ability to conquer the Southern rebellion. We can afford to cover their record with a veil of charity, well knowing that they had no parallel rule in their own country by which to measure the strength of a nation of land owners like the American people, particularly the Western people.

The motive of this comparison between the conditions of the farmers of America and England is not an unfriendly one, but is an earnest intention to place the two pictures side by side in their true light before the reader, with a feeling of confidence that the social and pecuniary condition of Western farmers, will lose nothing by the comparison. But whatever may be said of the emoluments conferred by different forms of government on their respective subjects, let us not be unmindful

of the beneficent bounty of nature, so abundantly bestowed throughout the whole West, where the free soil has been possessed without money and without price, comparatively speaking. Such a spectacle never has been witnessed before, nor can it ever be again, unless we invent a flying machine to emigrate to some of the worlds in the starry firmament above; but not knowing that this will be done, or what kind of soil could be found there, I will not speculate farther than to say that if such an overwhelming innovation on science should actually be accomplished, our surprise would only be one grade higher than that of the Old World when a knowledge of the actual existence of a new one, even on their own territorial sphere, was forced upon their senses by Columbus. The cry, a New World, rang from the Adriatic to the Atlantic. Westward poured a tide of adventurers, and westward it will pour as long as portions of this New World are unoccupied, as is still the case on the western frontier. Some future period will witness a season of full tide even in the vast West, where nature is so prolific and almost boundless, with art crouching at her feet in diminutive proportions at first, but rapidly extending her empire by conquest upon conquest, till her trophies and temples shall vie with nature herself in beauty and harmony. The record and example of the Old World is before the New, and if it is not improved upon, it will be because the people inhabiting the New are less gifted in thinking. Of this hypothesis the world is to be the judge.

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MAP MAKING.

The first thing to be done is, to draw the map by hand exactly as it is to appear when printed. The fundamental data for this drawing is found in the original Government survey, which shows the townships, sections, rivers, lakes, swamps and State boundaries. These constitute the main part of the map. Next the county boundaries and location of towns are obtained from each county. The railroads and stations are obtained from the different railroad companies.

When all these are protracted on drawing sheets they are given into the hands of an engraver, who cuts each letter and line into the surface of a copper plate or lithographic stone. When this is done the map is ready for printing. The impression is obtained on a powerful lithographic press. The sheet is laid on the engraving and a scraper drawn over it by leverage power so compressed as to bring out the finest lines and letters in distinct relief. This kind of printing costs more than twenty times as much as ordinary newspaper printing.

The colors are put on by hand and not printed, as many inexperienced persons suppose.

We now have the map ready to be mounted. To do this, bleached muslin must be stretched tightly in a frame and the map pasted on it. Next it has to be washed over with a strong solution of white glue to prepare it for the varnish. When this is dry the varnish is applied. The map is then cut from the frame, the edges bound and the rollers tacked on, when it is ready for sale. Pocket maps are printed on bond paper and folded into muslin cases.

The manufacture of maps in Chicago is stimulated by their great demand from the growing country around. Here local pride and public spirit constantly call for new maps to show varied and accumulating improvements which are rapidly progressing. These are readily bought to displace the old ones, which, owing to the rapid development of the country, are sometimes obsolete before they are soiled by office dust.

Constant vigilance is required to keep pace with the cropping out of new towns and railroads where the Anglo-Saxon sets his foot, which seem to spring up as if from spores left in his tracks.

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